ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES
DEPARTMENT OF SPECIAL NEEDS EDUCATION

THE EFFECT OF CREATIVE ART THERAPY ON SOCIAL SKILLS OF CHILDREN WITH AUTISM THE CASE OF NEHMIAH AUTISTIC CENTER IN ADDIS ABABA

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A THESIS SUBMITTED TO THE GRADUATE PROGRAME OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER OF ARTS DEGREE IN SPECIAL NEEDS EDUCATION

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Abstract

In recent years, support centers for autism and professionals have expressed alarm about the growing problem of autism in Ethiopia. While most agree that the issue deserves attention, there are no clear consensuses reached around how to respond to the problem. This research examined one approach to enhance social skills of children with autism: creative art therapy. The researcher has carried out experiment on the effectiveness of creative art therapy and suggested the need for inclusive solutions that combines social and behavioral approaches to this complex problem and developed the treatment package in social skills and implemented the treatment package for three months. The recorded outcome variables on social skills include; eye contact, turn taking, imitation, recognizing self, following instruction and engaging in social interaction. To study this experiment multiple-single subject experimental design is used. The literature reviewed has all supported the idea that creative art therapy could be used to help children with autism in developing their social skills. A study was then conducted in which a group of six students with Autism engaged in creative art therapy activities and their social skill development were tracked, supporting the idea that creative art therapy can be used to help these students. The finding answered the research hypothesis: creative art interventions have a positive effect on eye contact, turn taking, imitation, recognizing self, following instruction and engaging in social interaction the results indicate that by engaging a child with autism in creative art therapy intervention was an effective way to improving the social skills of children with autism spectrum disorder. Based on the findings of this study, creative art therapy could be used to enhance the social and communication skills of children with autism spectrum disorder.

Dedication for A child with autism

For an A child with autism

For you in your world,
Locked inside yourself,
An island,
Isolated winds in your mind,
To you, locked inside beauty,
Inside anguish, inside joy,
You live
Breathe
Die
Emotions
too profound to understand,
Little one curled up rocking,
Your floor your world,
Safe,
Just you,
Your little expressive hands,
Like tiny birds,
talking in flutters,
your little angry snarls
repel a monstrous outside realm,
your beloved treasures:
Buttons
Diminutive fury animals
Smooth wooden beads
Dots of sunlight on your wall
Humming your songs
to calm your anxious hands,
Safe,

Just you,
At one with rhythm,
Your world
only bits of those others
who come and go like currents of air,
barely riffling your forelock,
Your face a delicate empty mask
to those who see only with eyes,
Those who don’t understand
your world,
To me,
Watching you,
I see myself,
I sing songs for you,
Little one, to tell you
You don’t have to forsake your world to be free.

-Jasmine O’Neill “Through the Eyes of Aliens”

CHAPTER ONE

Introduction

1.1 Background

Autism spectrum disorder (ASD) is a neurodevelopmental disorder marked by impaired social communication and social interaction accompanied by atypical patterns of behavior and interest. ASD is differentiated from other developmental disorders by significant impairments in social interaction and communication, along with restrictive, repetitive, and stereotypical behaviors and activities. Social communication and social interaction features include deficits in social-emotional reciprocity (e.g., deficits in joint attention, atypical social approach and response, conversational challenges, reduced sharing of interest, emotions, and affect); deficits in nonverbal communication (e.g., atypical eye contact, reduced gesture use, limited use of facial expressions in social interactions, challenges understanding nonverbal communication); and deficits in forming and maintaining relationships (e.g., diminished peer interest, challenges joining in play, difficulties adjusting behavior to social context).

ASD features of restricted repetitive patterns of behavior, interests, or activities may include stereotyped motor mannerisms, use of objects, or speech (e.g., simple motor stereotypies, repetitive play, echolalia, and formal or idiosyncratic speech); insistence on sameness, inflexible adherence to routines, or ritualized patterns of behavior (e.g., distress at small changes, rigid patterns of thought and behavior, performance of everyday activities in ritualistic manner); intense preoccupation with specific interests (e.g., strong attachment to objects, circumscribed or perseverative topics of interest); and sensory sensitivities or interests (e.g., hyper reactivity or hypo reactivity to pain and sensory input, sensitivity to noise, visual fascination with objects or movement).

ASD symptoms cause impairment across many areas of functioning and are present early in life. However, impairments may not be fully evident until environmental demands exceed children’s capacity. They also may be masked by learned compensatory strategies later in life.

Many children with ASD may also have intellectual impairment or language impairment, and the disorder may be associated with known medical, genetic, or environmental factors.

Treatments for ASD that families pursue include behavioral, educational, medical, allied health, and complementary approaches. Individual goals for treatment vary for different children and may include combinations of therapies. For many individuals, core symptoms of ASD (impairments in communication and social interaction and restricted/repetitive behaviors and interests) may improve with intervention and over time; however, deficits typically remain throughout the lifespan. Lifelong management—often using multiple treatment approaches—may be required to maximize functional independence and quality of life.

1.2 Statement of the Problem

To many professionals and parents the number of children with autism seems to be increasing at a faster pace than before. Statistical evidence on the extent and prevalence of the problem is not sufficiently available in the developing countries in which Ethiopia is unexceptional. But since autism is found throughout the world and amongst all ethnicities, nationalities and social classes, we can expect that in Ethiopia there is roughly the same prevalence as in other regions of the world. This vast population of children with autism has no access to intervention, education, or life skills training.

Autism spectrum disorder coupled with poverty it makes it unbearable for families, communities and Government. Most parents in Ethiopia with a child with autism end up in divorce, mental depression and live in poverty. There is also a lot of stigma and discrimination in the society due to the reason that people believe most mental problems caused by curse or sin committed by their respective families. (Argaw, B.2010).

1.3 Significance of the research

The researcher of this study believes that the study may have paramount importance for the beneficiaries to examine and improve the practices to increase social skills of a child with autism. The study will also create awareness about the practices of creative art therapy for special trained staff for autistic rehabilitation centers, special need institution, and intervention

professional's practitioners, parents of a child with autism, civil society, caregivers, teachers, non-governmental agencies and government policy makers

Finally, the study may initiate other researchers to undertake in depth study on the problem.

1.4 Research objective:

The purpose of this study was to explore how children with autism respond to others appropriately, and interact with other people by making friendships; eye contact; turn taking, imitation, instruction following, knowing self and socialization through the therapeutic use of creative art and improve their communication and Social skills.

1.5 Limitations

The specific limitations are as follows:

1) Money –Financially it was unrealistic for the researcher to take off work the whole session and incur the prohibitive cost to hire outside observers for data collection.

2) Control of Extraneous Variables –This population of children was at risk for health issues and sudden breakdowns. The study observations might have been altered or compromised if the child became ill or had to be removed from the social setting due to a sudden onset of an illness or a breakdown.

3) Time – it is clear that the time needed for single subject design too prolonged it gave me hard time with my carrier and it needs to take leaves without payment and it has significant effect the in my findings.

5) Literature: - The literature concerned with creative art therapy specifically for those with Autism Spectrum Disorders (ASD) is minimal. There is No currently Master's level or under graduate programs in Ethiopia that provide Drama Therapy programs. Drama therapy resources specifically geared towards children with special needs is an even smaller list, with focuses in autism a part of this division.

1.6 Research Hypothesis:

This study aimed to examine the following six main research hypotheses.

Hypothesis 1: creative art intervention will have a positive effect on eye contact of children with Autism

Hypothesis 2: creative art intervention will have a positive effect on imitation of children with Autism.

Hypothesis 3: creative art intervention will have a positive effect on turn taking of children with Autism.

Hypothesis 4: creative art intervention will have a positive effect on instruction following of children with Autism.

Hypothesis 5: creative art intervention will have a positive effect on recognizing self of children with Autism.

Hypothesis 6: creative art intervention will have a positive effect on engaging in social interaction of children with Autism.

1.7 Operational definition

Dependent variables

Eye contact: - looks at adult who is talking to him or follow adult gaze when adult is looking at something or watch other children playing & looks at adult's face when trying to get his//her attention

Turn taking: - takes turns in gross motor games or take turns physically prompted or in simple ball game or take turn in more informal structured play

Imitation: -does perform simple gesture on cue or does perform more complex gestures on cue or does perform simple facial expression

Instruction following: - follow simple instruction given or respond when his name is called or could bring something on request from another room

Recognize self:- recognize mirror image /picture of self , identifies /defends own possessions or show preference for people or request toys /activities /food he wants

Engaging in social interaction can shake head for 'no' and yes or waves and say bye-bye or does he say thank you.

Independent variables

Music Therapy – focuses on the prescribed use of music to effect positive changes in the psychological, physical, cognitive, or social functioning of individuals with disabilities. Additionally, music therapy can also be "expressive" when individuals are writing or playing their own original creations.

Drama Therapy – focuses on the systematic use of drama/theater processes, products, and associations to achieve therapeutic goals of symptom relief, emotional and physical integration, and personal growth. This type of therapy can allow the individual to tell his or her story, solve a problem, achieve catharsis, and expand one's personal experience.

Dance/Movement Therapy – focuses on the use of movement on the presumption that the body and mind are connected. This type of therapy is the psychotherapeutic use of movement as a process that furthers the emotional, cognitive, and physical integration of the individual. Additionally, this type of therapy can affect changes in feelings, cognition, physical functioning, and behavior.

1.8 Organization of the Study

The overall structure of the study takes the form of six chapters, including this introductory chapter contains the back ground, statement of the problem, research questions, significance of the study, definition of terms, and limitations of the study. Chapter Two begins by laying out the theoretical dimensions of the research, and looks at how creative arts are useful for the social skills of children with autism .The methodology and procedures used to gather data for the study are presented in Chapter three. The results of analyses and findings to emerge from the study are contained in Chapter four. Chapter five contains a summary of the study and includes a discussion of the implication of the findings to future research into this area. Finally in chapter six conclusions drawn from the findings, a discussion, and recommendations for further study.

CHAPTER TWO

Review of related literature

Introduction

The purpose of this Literature Review is to evaluate the views of other scholars on the subject. Are they enthusiastic about this kind of intervention? Do they mention this kind of treatment? How does the literature relate to research Hypothesis? And strives to answer the research Hypothesis but first, the question arises, "What is autism."

In order to reviewing studies that evaluate differing intervention methods, it is important to be familiar with current understandings of background knowledge of autism.

2.1. Understanding the autism spectrum disorder (ASDs)

The term 'autism' was coined by Eugen Bleuler, a Swiss psychiatrist, who was trying to describe the loss of contact with external reality displayed by people with schizophrenia (Bleuler, 1913). The first clinical accounts of the disorder we label as autism today were provided by Leo Kanner in 1943 when he published a detailed account of 11 children with a common clinical presentation. Since KANNER in 1943 was the first to describe and label autistic disorder Both the term and the definition of Autism Spectrum Disorder have changed many times over the years. Although first defined as a mental health disorder, it was later correctly placed under neurodevelopmental disorders. The original versions provided narrow definitions, which were expanded more broadly in later years. In the earliest versions of the DSM, ASD was not well understood, and the term "autistic-type behaviors" was used. This disorder was classified with childhood schizophrenia and the label given to only those with the most severe challenges. As research and our understanding of ASD advanced, these same behaviors were classified as a separate disorder in 1980, at first called infantile autism and later changed to autistic disorder.

In 1994, with the release of the DSM-IV, the definition was modified to include the term Asperger's Syndrome for the first time. Also included at that time were the disorders Childhood Disintegrative Disorder, Rett's Syndrome, and Pervasive Developmental Disorder-Not Otherwise

Specified (PDD-NOS). These four terms plus Autistic Disorder were grouped together under the label of Pervasive Developmental Disorder and included individuals with both severe and subtle challenges in their level and type of communication or social ability.

In this fifth edition of the DSM, as we have learned even more about the disorder, the definitions and terms have changed yet again. The terms Asperger's Syndrome, Pervasive Developmental Disorder—Not Otherwise Specified (PDD-NOS), and Childhood Disintegrative Disorder are no longer included in the definition. In addition, Rett's Syndrome is now considered a completely separate disorder. The DSM-5 now use the overarching term Autism Spectrum Disorder and allow clinicians to indicate levels of severity. This new change reflects the idea that this disorder is a spectrum and that every individual with ASD is unique in their abilities and challenges.

The autism spectrum is the term for a range of neurological disorders , classified from mild to severe , from attention deficit disorder (ADD) to Asperger's syndrome to what is known as 'classic autism''. Think of the spectrum as straight line with a dot at each end and one at the middle. Although along the bar there are other, less common disorders this thesis focus the classical autism which is increasingly the prevalent one and the most involved or severe form of these disorders. Children in this range are very intelligent, observant, and sensitive to the surrounding, and are not given enough credit for their intelligence. They hear and understand everything that is taking place around them. Everything registers even though they may give no out ward sign of hearing, seeing, or understanding anything. Children with autism may be non-verbal, shun receiving or giving affection, and may not look you in the eye .they may have elective mutism, literally shutting of their hearing because the noise in their environment is unbearably loud and painful.

Autism is referred to as a spectrum disorder, which means that the symptoms can be present in a variety of combinations, and can range from mild to severe.

There are problems with attention and resistance to change. All individuals with autism have difficulties with social interaction, but the extent and type of difficulty may vary. Some may be very withdrawn, while others may be overly active and approach others in peculiar ways. Individuals with autism may respond differently to sensory stimuli and may exhibit odd

behaviors such as hand flapping, spinning, or rocking. They may also demonstrate unusual use of objects and attachments to objects. Although individuals with Autism share some common features, no two individuals are the same. In addition, the pattern and extent of difficulties may change with development. The common characteristics help us to understand general needs associated with autism, but there is a need to combine this information with knowledge of the specific interests, abilities, and personality of each student.

Despite the advance that have been made in diagnosis and treatment over the past twenty years, Autism is still a mystery. Because autism and autism spectrum disorders are relatively new condition as opposed to polio, for example, there is a great deal of conjecture about the causes of, and the care for the children with, such neurological disturbance. We do not know how or why it happens. We do know that the spectrum Disorders are global in nature and no respecter of social strata, nationality, wealth, education, race, or anything else that tend to separate.

There are many theories about the cause of autism, including genetics, the environment, vaccines, and viral inflammations such as encephalitis. Although all have some validity, the major trauma is a gap or break-an infraction – in part of the brain. This brake is responsible for incomplete transmission of thoughts from one section of the brain to another, through what are known as neuropath ways. Development of these pathways occurs in the first three months in the uterus, when the brain is being wired and may be contaminated by other factors that complicate research and treatment. For example, another theory is that the infraction may be the result of toxins in the mother's body that are transferred to the developing embryo. (Janet Tubbs p.25)

Although it is not known exactly what cause this disruption of the neuropath ways 'development, it is obvious that children on the spectrum share similar characteristics. For example, they may all show some degree of difficulty focusing on tasks, poor social skills, lack of organizational ability, and/or a tendency to withdraw, with alternating periods of excessive activity. These boys and girls require early remedial work that engages the whole body, energizing the brain to re-establish neuro- pathways and creating healing from within. Involving children in activities that stimulate organs and autonomic nervous system generates new brain

cells. And by creating new cells, synapses (or connections) are formed that bridge the gap. This allows information to flow through neuro- pathways, as it should. (Janet Tubbs p.25)

Some research reveals that ASD has a strong genetic component, with heritability estimated to be between 40 and 90 percent. At least 100 genes are implicated in susceptibility to ASD; however, environmental exposures and context also play a role in ASD development and neuro genetic expression.Identification of specific genetic risk variants has been challenging, and many researchers suggest that multiple pathways are involved, including prenatal and postnatal insult. (Geschwind DH) Current research (Krakowiak P), (Dodds L, Fell DB,) suggests that certain metabolic and other maternal conditions (such as diabetes, hypertension, obesity, and influenza infection) during pregnancy may be associated with increased risk of ASD in offspring. Other studies have investigated the role of advanced maternal and paternal age, (Sandin S, Hultman CM, Kolevzon) intra pregnancy interval, pesticide exposure,(Shelton JF, Tancredi) and exposure to mercury and other heavy metals, (Schultz ST) among other potential risk factors.
In addition to the potential causative genetic and environmental factors described above, being the sibling of another child diagnosed with ASD increases the risk of receiving an ASD diagnosis from approximately 6.7 to 18.7 percent. This risk varies by gender and increases twofold when two or more older siblings have ASD.

The most recent version of the Diagnostic and Statistical Manual for Mental Disorders is the Fifth Edition-Text Revised (DSM-V-TR; APA, 2013); the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) updates disorder criteria to more precisely capture the experiences and symptoms of children. The book also features a new lifespan approach to mental health. Rather than isolating childhood conditions, DSM-5's organization underscores how they can continue to manifest at different stages of life and may be impacted by the developmental continuum that influences many disorders.

The DSM-V is currently in the works and set to be published by the APA in May 2013. The latest manual has numerous proposed changes to the diagnostic criteria for ASD and is a source of controversy among researchers and clinicians in the field (Wing, Gould, & Gillberg, 2011). The proposed criteria reduces the triad of impairments to only two, combining socialization and communication into one factor while keeping restricted behavior as the other

factor (APA, 2010). They are combining socialization and communication because communication is itself a social behavior. To meet criteria for Autism, individuals must demonstrate socialization and communication deficits as evinced by all three of the following: (1) deficits in social and emotional reciprocity, (2) deficits in nonverbal communication, and (3) impaired ability to develop and maintain relationships appropriate to their developmental level. They must also demonstrate restricted, repetitive patterns of behavior, interests, or activities as evinced by two of the following four criteria: (1) stereotyped or repetitive speech, object usage, or motor movements, (2) strict adherence to routines, insistence on sameness, or ritualized behavior, (3) fixation on certain topics that is abnormal in intensity or focus, and (4) abnormal reactivity to sensory input or fixation on specific sensory portions of the environment. As it stands currently, the DSM-V does not have a proposed age cutoff. However, it will require that symptoms are present in early childhood, even if they do not fully manifest until later in the child's development.

The second major change in the DSM-V will be the removal of subgroups, with all forms of ASD being subsumed under the title Autism (Wing et al., 2011). The APA (2010) argued that autism should be a single diagnostic label because it involves a common set of behaviors and features. They propose that clinical specifies (e.g., severity and verbal ability) can be used to further describe each individual's clinical presentation. The DSM-V will include three severity levels for ASD: level 1 (requiring support), level 2 (requiring substantial support), and level 3 (requiring very substantial support). Those at level 1 have noticeable impairments in social communication and exhibit rituals and repetitive behaviors (RRBs). Those at level 2 have marked impairments in verbal and nonverbal communication, limited social interaction, and RRBs that interfere with functioning across contexts. Finally, those at level 3 have severe socialization deficits that cause impaired functioning and RRBs that completely interfere with functioning in all aspects of their lives.

Eliminating the subgroups is a source of great controversy, especially among individuals with AS. Being labeled as autistic is more stigmatizing in our society than a label of Asperger's. Research also suggests that there are essential differences in the core features of Asperger's and Autistic Disorder such as a lack of impaired communication or cognitive delay in individuals

with Asperger's (Kaland, 2011). Additionally, there is some ambiguity in the DSM-IV-TR (APA, 2000) as to the differences between AS and high-functioning autism (HFA) that needs to be further clarified in the DSM-V (Bartlett, Armstrong, & Roberts, 2005). HFA refers to individuals who meet most of the criteria for Autistic Disorder, but have normal intellectual functioning and a history of language delay (Leboyer, 2011). Individuals with AS perform better on verbal IQ tests than those with HFA, so this could serve as one diagnostic criterion (Kaland 2002). Recent brain imaging studies have demonstrated that there are differences in brain structures between individuals with AS and Autistic Disorder (Jou, Minshew, Keshavan, & Hardan, 2010). There is no research at the present to link AS and Autistic Disorder biologically, because few genetic studies have been done on individuals with AS. Thus, it may be premature to group the two disorders under one diagnostic label in the DSM-V (Kaland, 2011)

2.3 Assessment of Autism

Due to the increasing prevalence rate of ASD, screening and assessment methods have also increased, which enables ASD detection at around 18 month Baron-Cohen et al. (1996) primarily administered the CHAT in Great Britain. Based on the CHAT, Robins, Fein, Barton and Green (2001) developed the Modified Checklist for Autism in Toddlers (M-CHAT) to administer and research in the United States. The M-CHAT uses the same format and the first nine parent-response items as the CHAT. In addition, the M-CHAT increases the screening to twenty-three items. The authors explain the addition is to "(a) broaden the checklist symptoms to identify a greater range of children with PDDs and (b) to compensate for the elimination of the home health visitor's observations, Part B of the original CHAT" (Robins, Fein, Barton, & Green, 2001, p. 134). The omission of the home health visitor's observations enables the M-CHAT to be more efficient and economical. The M-CHAT also raised the five key items from the CHAT to eight key items. If the child fails two of the eight key items or three of any item, the family was called for further assessment. Baron-Cohen et al. (1996) conducted a larger study to verify the CHAT's predictability. Clinicians tested sixteen thousand toddlers with the CHAT screening instrument. Of the sixteen thousand tested, twelve consistently failed the key items and ten received the diagnoses of ASD. The results indicate that the CHAT is a screening instrument that accurately assesses individuals for ASD at 18 months. As previously mentioned, the CHAT

is not a diagnostic tool, but rather a screening instrument. Therefore, if a toddler fails the CHAT, the toddler must undergo further assessments. Baron-Cohen et al. (1996) primarily administered the CHAT in Great Britain. Based on the CHAT, Robins, Fein, Barton and Green (2001) developed the Modified Checklist for Autism in Toddlers (M-CHAT) to administer and research in the United States. The M-CHAT uses the same format and the first nine parent-response items as the CHAT In addition; the M-CHAT increases the screening to twenty-three items. The authors explain the addition is to "(a) broaden the checklist symptoms to identify a greater range of children with PDDs and (b) to compensate for the elimination of the home health visitor's observations, Part B of the original CHAT" (Robins, Fein, Barton, & Green, 2001, p. 134). The omission of the home health visitor's observations enables the M-CHAT to be more efficient and economical. The M-CHAT also raised the five key items from the CHAT to eight key items. If the child fails two of the eight key items, or three of any item, the family was called for further assessment. The M-CHAT initially screened children at 18 months, like the CHAT, but after screening the first six hundred participants, the age of screening was raised to 24 months. The screening age was raised because pediatricians were more willing to screen at 24 months, children are not usually referred to an early intervention center before age 2, and most important, children who show regressions are most likely to do so between the ages of 15 and 24 months This indicates that the child is less likely to regress and in need of follow-up, if given the M-CHAT at 24 months (Robins et al., 2001). Robins et al. modified the CHAT to improve its sensitivity. A comparison of the CHAT and M-CHAT revealed that the M-CHAT is slightly better than detecting ASD than the CHAT. The M-CHAT shows better capability to detect a broader range of Pervasive Developmental Disorder, rather than just ASD. It not only shows to be more accurate, but also more efficient and economical. The results of M-CHAT studies warrant this claim (Robin 2001).

The APA (2013) ranked the levels of severity to outline the observable social communication and behavior deficits in ASD.

2.4. Prevalence and Burden of the Disorders

The prevalence of ASD in the United States is 14.7 cases per 1,000 (or 1 in 68) children living in the communities surveyed, with rate estimates varying widely by region of the country, sex, and race/ethnicity. Considerably more males (1 in 42) than females (1 in 189) are affected.

For some individuals, the core symptoms of ASD (impairments in communication and social interaction and restricted/repetitive behaviors and interests) may improve with intervention and maturation; however, core deficits typically translate into varying developmental presentations that remain throughout the lifespan. Longitudinal studies indicate that adults with ASD struggle to obtain adaptive independence. The estimated costs of medical and nonmedical care (e.g., special education and daycare) for individuals with ASD are high. One study estimates that the total lifetime societal cost of caring for and treating a person with ASD in the United States is $3.2 million, and about $35 billion yearly for an entire birth cohort of individuals with ASD.

Statistical evidence on the extent and prevalence of the problem is not sufficiently available in Ethiopia at the moment, so it is hard to say with certainty how many children are not receiving the help they need. But since autism is found throughout the world and amongst all ethnicities, nationalities and social classes, we can expect that in Ethiopia there is roughly the same prevalence as in other regions of the world. We can estimate that there are at least money children suffering from autism and related developmental disorders in the country. This vast population has no access to treatment, education, or life skills training. And rough estimation does not even consider the fact that malnutrition during childbirth is thought to induce autism in certain instances. Needless to say, Ethiopia is known to have chronic famine in many of its regions, with many women not given access to adequate food or care during pregnancy. These chronic problems associated with reproductive health and with nutrition might very well be leading to an increase in autism within Ethiopia.

The overall state of treatment options and therapeutic services for autistic children in Ethiopia is far from adequate. For instance, in the educational realm, currently there are only three private schools in Ethiopia that provides education to children with autism. Although they are operates at their capacity, the schools hardly able to treat even a fraction of the children with autism in Addis Ababa alone.

In fact most children with autism in Ethiopia are not even diagnosed as autistic. They are widely deprived of their basic rights, including the right to get an education, or the possibility of any treatment, because of a pervasive lack of awareness. These children are considered useless

and unworthy of resources. They are often denied any rights whatsoever, even the right to see daylight, enjoy sunshine, or the right to in some way participate in society.

Commonly parents of autistic children in Ethiopia, particularly mothers, become disabled themselves. Burdened with the full responsibility of care, and likely having very little income, their child's disability directly constrains their ability to work and make a living; to take care of their children and themselves. Often, the exceptional demands of the child's disability also create emotional and financial problems for the parents.

The many children with autism in Ethiopia are neglected and extremely vulnerable. Because some children with autism look normal physically, people often mistakenly imagine they are simply unruly or poorly behaved. And because of a general lack of awareness, they and their parents are often blamed for their actions, with the disorder sometimes even seen as punishment for some spiritual wrongdoing. In fact, with few Ethiopians even aware of autism's existence, more often than not the symptoms of the disorder are misrecognized and misunderstood, with tragic consequences.

Most parents of children with autism do not have sound information and knowledge about the symptoms of autism. In particular, mothers of autistic children who have lost their spouse to HIV/AIDS, other diseases, or who are victims of spousal abandonment due to their child's disorder are left with few resources. With little explanation for their children's behavior, and few sources of assistance, they carry an incredible burden. They remain without any aid, left alone to futilely plead for help. They must stay home to manage their children, though financial demands mount. They are unable to work because their children are often not allowed to attend regular schools for children their age. These mothers cannot even leave their children with relatives or neighbors, because their child's uncontrolled behaviors are misunderstood; recognized as the expression of poor parenting, or, again, as the punishment for sin. This leads to financial instability and, more often than not, outright poverty.

And these parents are unable to feel at ease when speaking about their children openly. Instead of receiving support, they experience great guilt about their child's condition, and often imagine that they are somehow to blame. They are ashamed of their child due to the

misunderstanding of society at large. They feel personally responsible for their children's condition, or believe that the symptoms of autism are a curse from god, rather than the manifestation of a neurobiological condition. Humiliation and extreme social stigmatization result from these regular misunderstandings.

Furthermore, in a country like Ethiopia, the general attitude towards mentally challenged people is quite impoverished. Affirming the rights of children, in the face of pervasive discrimination, will be the key to progress. This acceptance will ensure that positive attitudes are developed and awareness increased. But even if attitudes are changed, a great deal will still need to be done in Ethiopian society. To facilitate the inclusion of children with autism into society and to create a place for them in the school systems will take time, patience, and work. (https://niafoundation.wordpress.com)

2.5. The study on autism spectrum in Ethiopia

The study on autism spectrum in Ethiopia was so minimal and the researcher observed some of the studies as follows

2.5.1. Assessment on Multi-cultural Intervention for Autistic Children: The case of Joy, Nehemiah and Ryan Autism Centers (Abdulhakim Hussein June 2016)

His qualitative study was conducted to examine issues related with multiculturalism to effectively intervene with autistic children found in care centers of autism. The study focused on three autism centers namely Joy center for children with autism and related developmental disorders, Nehemiah autism center and Ryan autism center. This study has essentially examined those interventions that are helpful when working with multicultural children diagnosed with autism spectrum disorder the clandestine affecting such interventions. Data was collected through nine semi-structured interviews with professionals who work with these autistic children inside the three autism treatment centers. Additionally 22 open ended questioners were distributed to practitioners in the treatment centers with the rational of maximizing acquired data. Grounded theory methods and open coding were used in this study to analyze codes in the data and recorded common themes from the collected data. Findings of this study produced themes separated into three categories: language, accessibility and culture as barriers affecting multi-cultural intervention. Additionally in terms of helpful interventions for multicultural children,

participants of this study recommended interventions developed under the model of Applied Behavioral Analysis (ABA) to be more helpful while treating these autistic children with diverse background applying individualistic treatments depending on specific needs using speech therapy, occupational therapy, social interaction enhancement therapy, and picture exchange therapy while teaching them self-help skills like toilet training.

2.5.2. **Families Living With a Child Diagnosed With Autism:** Challenges and Coping Mechanisms (Aynalem Tadesse, 2014)

In his study he expressed that Families are facing a number of challenges in raising a child with developmental disability. Though there are different types of developmental disabilities, autism is one of the most important developmental disabilities to be studied. The functional family system is experiencing a challenging situation due caring a child with autism which further affects family members and the community at large. The main objective of this study was to understand the challenges in relation to psychological, social, economic, marital and sibling aspects and coping mechanism of families living with a child diagnosed with autism. A qualitative approach particularly a case study was used in this study. The tool for collecting primary data was in depth interview to gather detail information about family challenges. Six families whose children are enrolled at Joy Center for Children with Autism and Related Developmental Disorder were involved in the study. Finding of the study was analyzed using finding of case study with thematic areas. The finding from the study confirmed that study participant families living with a child diagnosed with autism are facing psychological, social, and economic challenges. Stress, anxiety, social isolation, discrimination, limitation in labor market participation and financial burdens are the main challenges. Families have employed various coping mechanisms to minimize the magnitude of these challenges. In addition, the result of the finding has implication to social work practice. Provision of psychosocial support and awareness creation has to be addressed with different stakeholders in health and social sector. In addition, research works in the area of disabilities particularly autism has to be encouraged.

2.5.3 Psychosocial impacts of Autism families and their perception on the supports provided at joy center Nia foundation for autistic children in Addis Ababa (Daniel Hailemichael, 2014)

The purpose of his study was to assess the psychosocial impacts of autism and the support systems to families of children with autism and their perception of the supports provided. To do this, a narrative research design was used for the study and qualitative approach was employed. Data were gathered from Joy Center Nia Foundation for Autistic children in Addis Ababa, Ethiopia. First, the researcher availed himself to employ observation session. Then, using interviews focus group discussion and observation; three teachers, including one head of teachers, five parents have participated in the study to obtain the necessary data. Findings of the study revealed that these parents were getting the support they needed even though there were a number of support systems yet to be accomplished. Experience and educational level of families appeared to have significant relationship with the provision of the support system and its application. Besides, psychological problems such as depression, exclusion, anxiety, fear, etc had also been their major problems. Caregivers are also found to get subsistence amount of money which can otherwise affect the support system. Following the findings and conclusions drawn, it was recommended that the government and other pertinent bodies should work in collaboration with the management of the center in areas where families can benefit a lot and ameliorate their current problems. It is also recommended that the center should do it's very best to make the center a conducive research place for all who come to carry out their studies.

2.5.4. Reactions, Challenges and Coping Mechanisms of Mothers Raising Children

With Autism Spectrum Disorder (ASD): The case of Addis Ababa City (Helen Berhane, 2016)

Autism Spectrum Disorder is a complex neurological disorder which causes impairments in multiple areas of development including social interaction, communication, and behavior. There is clear evidence that parents of children with autism face many challenges in dealing with their children's difficult behaviors that can lead to negative psychological outcomes, including exhaustion, stress and depression. Moreover, it is evident that parents encounter social challenges such as problems on family relationship and lack of understanding attached to the disorder by society that lead to discrimination not only of the autistic child but also of the family

as a whole. However, despite the many challenges parents of children with autism usually identify coping strategies that will work for them. This study therefore aims to explore the lived experiences of mothers raising children diagnosed with autism on the psychological and social challenges they faced as well as coping mechanisms they found effective in dealing with those challenges. A qualitative phenomenological research design guided the data collection and analysis which included six deep interviews that were recorded. The results that were conceptualized under the four research questions containing fourteen themes indicate that raising a child with autism is characterized by many psychological and social challenges such as mothers lack of information and support during the time of diagnosis, worry about child's future, stress from managing a child with autism, not having a time for oneself, effect on family, difficulty finding education and treatment for their children and lack of understanding followed by negative comments from the society.

2.5.5. Knowledge and attitude of nurses towards childhood autism at selected Governmental hospitals in Addis Ababa Ethiopia (Selam Tassew, 2016)

Autism is a neuro developmental disorder which occur in early childhood period and it is characterized by altered social interaction, communication problem, repetitive, and stereotyped behavior. The Objective of her study was to assess knowledge and attitude of nurses towards childhood autism at selected governmental hospitals in Addis Ababa, Ethiopia, from March to June 2016.

The Method used for the study was Hospital based cross-sectional study design was used. Sample size was calculated by using single population proportion sample formula and the final sample size was 360. Final study subjects were selected by using systematic random sampling method. Data were collected using structured self-administered questionnaires and it was coded and entered to Epi-data version 3.1and exported to SPSS version 21 for analysis. Descriptive statistics such as frequency and percent was carried out and analysis of variance was carried out to compute the association between the dependent and independent variables. P-value less than 0.05 at 95% CI was indicated presence of association between dependent and independent variables. Then turkey post-hoc testing was carried out to identify the significant of group mean difference. P-value less than 0.05 at 95% CI was indicated presence of significant mean

difference between dependent and independent variables. Independent t test was also done to see the association between dependent variables and independent variable with two means

Result- The mean score for knowledge related question was 8.79 ± 0.44. .In this study out of 331 nurses 180 [54.35 %] had good knowledge, Age of respondents [F-Ratio = 2.8, P-value = 0. 04], level of education [F-ratio = 13.97, P–value = 0.000] and work experience [F-Ratio = 3.07 P–value = 0.017] had significant association with knowledge of nurses towards childhood autism. Regarding attitude of nurses 178(53.8 %) and have favorable attitude.

Conclusion and recommendation- knowledge deficiency was found in this study which could deprive the quality of care that is given for autistic children. This result can be taken as the predictor of the need to improve knowledge and attitude of nurses towards childhood autism, which could ultimately enhance the quality of care that is given to autistic children.

2.6 Treatment and Interventions

The manifestation and severity of symptoms of ASD differs widely, and treatments pursued by families include a range of behavioral, psychosocial, educational, medical, and complementary approaches35-39 that vary by a child's age and developmental status. The goals of treatment for ASD are to improve core deficits in social communication and social interactions and minimize the impact of restricted behaviors, with an overarching goal to help children develop greater functional skills and independence.5 Treatment frequently is complicated by symptoms or comorbidities that may warrant targeted intervention. There is no cure for ASD and no global consensus on which intervention is most effective.38, 40 Individual goals for treatment vary for different children and may include combinations of behavioral therapies, educational therapies, medical and related therapies, and allied health therapies;

The brain is very complex organ that, in today high tech world of computers, could be called '' a mother board '' All sensory input must go through this intricate piece of equipment. But to understand how the brain affects a child with autism, we need a working knowledge of its basic form and function.

To learn how and why the brain is affected by toxins and other influences at certain stage of development, we need to discover a few things about this remarkable organ that starts out as a cluster of cells. As it develops, this cluster expands to 10 billion cells called neurons. Each

neuron consists of a nucleus, axons, dendrites, and synapses .the cell known where they have to go and begin moving early in fetal development to form the hippocampus, cerebral cortex, and cerebellum. (janet tubs p.58)

In a brain that works properly, a neurons ‘’ fires’ a message and the axons send an electrical signal. (Think of a telegraph operator sending a message.) Dendrites then receive these signals from other cells. (The operator on the other end.) Synapses are the gaps between adjacent dendrites. (If the wires are down for some reason, the message doesn’t get through.)

Children with psycho- neuron disorders often have an incomplete connection between axons, which send signals to dendrites, which receive the signals in various part of the brain. Even at the tender age of nine or ten weeks after conception , cells and neurons known exactly what they’re doing when they send electrical impulse through the nervous system in a very precise way. If they didn’t, our brain would be a jumble of crossed wires creating havoc.

The brain builds billions of synapsis, or bridges, over which a neuron sends its message to the dendrites. In autistic children, there’s an infraction in the tissue or neuropath ways that has to be repaired. Message has to pass from neurons to cells by ways of synapses. If those synapses, or connectors, are damaged, the information doesn’t get passed on and may be un intelligible or, more likely, simply isn’t received at all. Building new brain tissue with medical, nutritional, and remedial measures that balance and stimulate the hemisphere of the brain can restore neurotransmitters and synapses. In the future, stem cells will probably be available as a treatment option, migrating to the areas of the brain that needs repair.

Research suggests that early detection of ASD implies more effective treatment and less family stress. Early detection of ASD leads to early intervention, which may increase the child’s long-term potential. Studies reveal that infants with ASD have abnormal brain circuitry that leads to altered activity, which combined with experience, creates abnormal secondary brain development (Belmonte et al., 2004). Horowitz (2000) explains that secondary brain growth occurs through the interaction between experience and thought. Early intervention can make a significant impact because the experience can positively alter the development of the individual’s secondary brain growth (Horowitz, 2000). Consequently, the child may have an improved long-term prognosis.

2.7 Theoretical Framework

Theoretical framing drives educational practices. It is through the multitude of theories regarding education that different approaches and models are formed and it is through a personal connection with one or two particular theories that a professional philosophy is developed. It is important, therefore, to be aware and knowledgeable of the many different theories, whether you agree with them or not, in order to formulate a comprehensive and critically considered personal philosophy. Not every theoretical framework will align with or support a particular approach in education; it is important to think critically about these theories, as well as the ones that support the approach, in order to truly determine whether the approach is valid or not.

2.7.1. Theory of Mind

The phrase "theory of mind" refers to a specific cognitive capacity: the ability to understand that others have beliefs, desires and intentions that are different from one's own. Empathy is a related concept, meaning experientially recognizing and understanding the states of mind, including beliefs, desires and particularly emotions of others without injecting your own, often characterized as the ability to "put oneself into another's shoes". Children are supposed to develop 'theory of the mind' at around four years of age.

There has also been speculation that certain humans fail to progress through the normal cognitive developmental stages that lead to acquisition of a theory of mind. In 1985 Baron-Cohen, Leslie and Frith published an article called "Does the autistic child have a theory of mind?" in which it was suggested that the human brain normally has a "theory of mind module" and that this particular component of the brain may not develop normally in some people. More recently, Dr Simon Baron-Cohen published a book called Mindblindness that explores this theory of mind.

By not understanding that other people think differently than themselves, individuals on the autism spectrum may have difficulties in social interactions with other people. They may not understand and become upset if someone does not know the answer to a question. They will have trouble anticipating what others will say or do in a variety of situations, and their difficulty in understanding that others have thoughts and emotions can make the autistic person appear self-centered, eccentric, or uncaring.

Many autistic individuals have difficulties in lying. and theory of mind is proposed as a reason. Individuals with Autism may believe that others always know what they are thinking. While not pleasant for teachers or parents, the beginning of telling lies in a child can be positive in that it is a developmental milestone.

A common strategy for dealing with these issues is using social stories to help individuals with Autism 'read' and understand social situations. Social stories are used to explain appropriate social behaviors. It was developed by Carol Gray and seeks to include answers to questions that autistic persons may need to know to interact appropriately with others (for example, answers to who, what, when, where, and why in social situations). The use of social stories can motivate children to question why others see the world in different ways.

2.7.2. Inclusion theory

The inclusion theory of Special Education asserts that all children should be welcomed into the same community. In the inclusion theory all children are valued members of the same community with something valuable to offer. The inclusion theory is not a favor to children with disabilities, it is the recognition that all children can learn from one another and the opportunity for children with disabilities and children without disabilities to learn from one another and further develop (Sapon-Shevin, 2008). The inclusion theory asserts that all children can benefit.

2.8 The Needed Connection between Art and Autism

Children on the autism spectrum are innately attracted to all of the arts. The energy it takes to focus on a work of art, regardless of the art form, eventually affect all areas of their lives, children who have little interest in their environment are stimulated through the art and come alive inwardly. their spiritual nature responds to the beauty of art in all forms and care must be taken that the music played during a therapy session be of fine quality classical composition The great musical masters wrote music that has the power to affect every level of human being, and if we quite ourselves enough to listen, we feel it.(Janet Tubbs p.125)

Socrates wrote, “Education is kindling of a flame, not the filling of a vessel.” The true meaning of the word educate is to bring out what is within us or to evolve and grow. This is the goal of every therapist and should be the goal of every teacher and parent. We can substitute “art

“for “education” in this quote as we ignite the spark of life within children through artistic therapy. When children are introduced to various art forms, their spiritual nature is energized, and they express their feelings and emotions through whatever medium they are using. Because children are still so close to their spiritual source, they paint what they sense, not what they see. Creative or expressive arts therapy is the use art, dance, music, drama, and creative writing in a therapeutic setting to address emotional, cognitive, or physical disabilities. Creative arts therapy has its roots in the arts and theories related to creativity. Expressive arts therapy utilizes the creative arts as a means of self-expression. The terms creative or expressive art therapy are used interchangeably. (Janet Tubbs p.125)

According to IDEA, students with disabilities must have the same access to education as their non-disabled peers, including the opportunity to express their creativity and develop skills in the visual arts. Students with ASD have benefited from exposure to art and many believe that those students need art incorporated into their daily education. With their strengths as visual learners, art is an interesting crossroads for children with ASD due to the merger of deficits of imagination and need for sensory control into one activity (Martin 2009). Students may have a hard time engaging in art activities appropriately without the one-on-one attention that may be required due to sensory issues. For art classes to have the greatest impact on the student, lessons should be about thirty minutes in length since these children may have difficulty attending to tasks and may become bored or frustrated in longer lessons, resulting in an aversion to the lesson or undesired behavior to escape the lesson (Furniss, 2006).

Art projects are beneficial to students on the autism spectrum because art has the ability to help these students meet the following goals: developing imagination, sensory regulation, emotions/self-expression, developmental growth, visual-spatial skills, and recreation skills (Martin, 2009). Flowers (1992) points out that all children benefit from art, but children with

ASD in particular may experience growth in the following areas through art exercises: physical, social, and language skills; responses to sensations affecting one sense or a combination senses or responses, reactions to pain, and the way the child holds his or her body; speech and language, and manner in which they relate to people, objects, and events. Students diagnosed with ASD will exhibit deficits in at least one of those areas (Flowers, 1992).

As more students are included in art education settings, art teachers need to be prepared to teach students with disabilities (Guay, 1994; Hillert, 1997). It is necessary for teachers to know how to work directly with students with disabilities and to know how to guide, support, and collaborate with other school personnel, professionals and families. The current literature on the connections between ASD and art lack input from students with ASD about their experiences in art education and art-making (Burdick 2011). While this may be related to the disorder's impact on communication, it is imperative that the opinions of students with ASD are taken into account to provide additional insight on ways to improve their access to art curriculum.

Even though it is difficult to find literature that quotes students with ASD about their opinions of art, we can look at Donna Williams, an artist with ASD, who coined the word "ARTism". She defines the term on her website:

> My use of the word 'ARTism' came from my description of the relationship between autism and art and I've been using the term since 2000. There's an interaction between autism and artism on so many levels. I believe the artistic personality may occur commonly in people with Autism, particularly those with a constant pattern of mood extremes (Williams, 2000).

Williams points out the influence of art on people with ASD, through her creation of the word "ARTism" and her personal connections to art. While there is literature to support the benefits of art for students with ASD, many art educators may still have concerns and show reluctance when working with these students.

There are misconceptions within the field of art education regarding low intellectual abilities in students with ASD that present potential barriers for providing meaningful engagement activities. Utilizing inappropriate materials, such as juvenile coloring books or having the student's Para educator complete the project for them is not only unnecessary, but it deprives the student of their right to access of the curriculum (Burdick, 2011).

While some students with ASD may demonstrate savant-like abilities, with extensive knowledge in a single area of interest, or splinter skills within the arts a majority of the student's art educators encounter may not be that high functioning. Students on the lower functioning end

of the spectrum can still make meaningful connections with art when presented in an accessible format. The misconceptions that students with ASD lack the required skills to participate have been dispelled by research focused on the art created by students with autism (Burdick, 2011; Koo, 2008).

In a recent study, the art experiences and connections of adolescents with ASD were compared and measured through interviews, observations, and looking at samples of created artwork (Burdick, 2011). That study focused on art created by 13 elementary and middle school students with ASD in a variety of art education settings, including public schools, private schools, personalized lessons at art studios, community based art education, and in-home settings.

In another study, Koo (2008) researched the role of artistic expression and creativity in young artists with ASD and their motivation for engaging in art activities. Through observations and interviews, Koo's research sought answers to the following questions: What is the meaning and potential of art for children with autism? How do children with autism engage in art activities? In what ways do the artistic activities of children with autism engage their cognitive and perceptual processes? What is the benefit of artistically creative activities for children with autism? (Koo, 2008).

Through their own research, both Burdick (2011) and Koo (2008) have found the significance that art can have on students with ASD. Despite their agreement about the importance of art for students with ASD, Gerber and Kellman (2010) observed that students who communicate nonverbally yet do not have a reliable or widely understood method of communication which presents significant challenges during instruction. Nonverbal students frequently can use technology as mode of alternative communication. Options for alternative communication technology include voice output devices with pre-recorded messages, picture-based communication boards, text-to-speech software, tablet computers with communication apps, and speech generating computers (Gerber & Kellman, 2010). These devices increase students' abilities to communicate and learn through the use of technology. While the technologies are frequently used in special education classrooms, their use can be generalized to

other areas, including art classrooms. One form of technology that has shown to be highly effective in teaching students with ASD is video based instruction (Bellini & Akullian, 2007).

2.9. Benefits of Art Therapy with Individuals with ASD

Henley (1991), a seminal author in art therapy and ASDs, speculates that individuals with autism spectrum disorder (ASD) may have a disrupted sense of self. Emery (2004) coincides with further speculation that having a sense of self is pertinent in relating to others. These speculations suggest a theory that individuals with ASD have difficulty relating to others because they may lack a sense of self. In other words, they lack a theory of mind (TOM). Research hypothesizes that art therapy promotes developing this sense. Martin (2008) develops the theory that portrait drawing enhances face processing and recognition skills, which are integral in relating to others. If art therapy promotes developing a sense of self and others, then art therapy can improve ToM in individuals with ASD. For individuals with ASD, the research suggests that the art product increases self- and others-awareness, self-esteem, and acts as a form of communication. Henley (1991) speculates that the art process can be a safe therapeutic environment that can be difficult to create with individuals with ASD. Often with individuals with ASD, the interaction and confrontation with a therapist can be problematic. Henley further explains that "The art process can diffuse such confrontations by deflecting the tension as a kind of buffering or soothing agent, which in turn enhances self-esteem and a cohesive sense of self" (1991, p.71). In the case study of a 6-year-old boy, (Emery, 2004) addresses three areas of progress for clarity: first, the boy's development; second, object constancy; third, language development. The focus of the art therapy sessions was to increase the boy's relatedness to people and objects. In the research article, Emery hypothesizes that art therapy establishes object constancy in individuals with ASD, therefore increasing awareness of self and others. Object constancy is defined as the ability to remember objects and their relationship to his or her inner world (Emery, 2004) According to Emery (2004), when the child began art therapy, his symptoms were as follows: poor eye contact, mechanical intonation, limited vocabulary and inattention. Furthermore, the child had not developed an imagery schema for objects, which is typical to individuals with ASD. Emery suggests that individuals with ASD do not have internal order for relating to objects, therefore they are usually disinterested in drawing and do not

develop schemata for objects. For example, Emery word house when asked to draw a house. Emery speculated that the child's poor eye contact and inattention could have been due to the child's inability to order the objects in the room. As the child began to represent objects in his drawings, Emery hypothesizes that it may have encouraged object constancy, and in turn, growth and development. Emery concluded that having a sense of self is pertinent in relating to others. Additionally, she suggests that art therapy promotes developing the sense of self. Based on this suggestion, the boy in the case study expanded his awareness of self and others because he participated in art therapy. The results showed that during the child's art therapy sessions, his motor skills improved, vocal tone regulated, object constancy progressed, social interest increased, and his rigidity lessened. The boy was in art therapy for 7 months, and as indicated by the case study his ability to relate enhanced. Based on Emery's observations, art therapy improved the boy's socialization, communication and imagination (2008) developed the Portrait Drawing Assessment (PDA) to determine ways in which individuals with ASD process human faces through drawings. As previously stated, individuals with ASD are notorious for having problematic relationships with the human face. Martin speculates that portrait drawings are exceptions to this problematic relationship, and proposes that portrait drawings may improve face recognition and processing skills. According to Martin (2008), drawing another person's face forces the artist to process information about the other person's emotional state. From art therapist Costello-Du Bois' (1989) observations, clients develop self-awareness from drawing portraits of others. If drawing portraits develop awareness of self and others, then it also enhances socialization, communication and imagination in individuals with ASD.

One conclusion that the researcher can undoubtedly make is that formal autism books will lack information on drama therapy. Perhaps, this is because of the books' emphasis on science; as stated earlier, science and art often clash, and a scientific book will probably not discuss theatre in great detail, because it's is not scientific enough (progress in acting cannot be quantified). Hopefully, future authors of these will begin to accept art scientifically, as the progress autistic actors make is irrefutable. In the research article, Epp (2008) examines the effectiveness of group art therapy with children with ASD. The research aimed to increase knowledge and expand methods when working with individuals lacking social appropriateness. Art therapy is helpful, not only because it increases social awareness, but because it also

encourages children with ASD to think more abstractly by solving problems visually. Art therapy sublimates anger and frustration, therefore decreasing the need for acting out behaviors (Henley, 2000). Moreover, art tends to be enjoyable and relaxing for individuals with ASD to learn social skills in group art therapy (Epp, 2008).

Performing arts therapies are a crucial resource to the ASD community. These unique modes of expression provide the key to unlock many minds from the isolation caused by their ASD diagnosis. While verbal communication is the primary form of expression utilized in our culture and society it cannot be regarded as the most effective way to reach those on the autism spectrum who have trouble engaging in our world. By taking a more accepting perspective towards the characteristics, needs, and abilities of people who possess this disorder, more effective ways of treating and managing their symptoms can be practiced. Maintaining this attitude of valuing the positive assets while still addressing the more negative characteristics and symptoms can help create productive therapeutic practice. Specifically in the case of performing arts therapies, learning to access the world of the client through shared experience and trust can help begin to bridge the gap between their world and ours, which lays the foundation for therapeutic successes. Performing arts therapies are an answer to this question of how to best cater to the skills and abilities already inherent in these clients while still helping them reach their potential for functional life skills.

Music and art can help increase learning for children, particularly those who have autism or other learning disabilities, since these activities provide unique sensory input and stimulation to the mind and body. Music and art can engage physical and mental focus for tasks. When children have success with music and art, you may see an increase in self-confidence, in the use of proper social skills, and in overall communication (McCord).

Singing and dancing to music helps children develop proper voice control, motor planning/control, and fine and gross motor skills. Repetition through song can help children with autism or other learning disabilities learn to anticipate words, rhythms, and concepts. This can help them participate more easily in music-based classroom activities since they know what to expect.

Art activities, ranging from drawing to acting, require different levels of complex thinking and problem solving. Art allows children to show thoughts and feelings in a creative way, often through nonverbal communication. Children with autism or other learning disabilities can express emotions through art that they may not otherwise be able to state.

Art can also play a huge role in the development of language, expression, confidence, motor planning, and fine motor skills. For students who have difficulty learning, art can open up a new way to access the curriculum. Art provides a creative outlet for the proper expression of rage, sadness, excitement, and other feelings. In therapy, art can provide healing. The creative process can trigger a sense of achievement and an increase in self-esteem. For children with autism or other learning disabilities, art can provide a nonverbal outlet for feelings and emotions.

The word mirror may be defined as ‘’ a reflective surface, usually of glass coated with silver on the back, a faithful representation, a pattern for imitation, to reflect in or as in a mirror ‘’ (stein & su, 1980, P.561). The word mirror is derived from Latin word mirage (Lichtenberg, 1985). Lichtenberg suggests that reflecting surface create a source of wonder & continuous fascination, as well as suggest the fantastic and illusory. The word mirror is also commonly used as a metaphor with in various topic areas as one tries to describe how one thing is a reflection of something else , including theatre as it described as a mirror to nature (Holtan,1976) or ‘’one usually thinks of Drama as the mirror of life … ‘’(Emunah , 1994, p. xiii)

While looking in to mirror one sees a reflection of self, demonstrating not only how one views himself but this reflection may also reveal how others may view him (Katz, 1996). What one sees may be accurate or not, depending on his own interpretation, which is linked with one’s own self-knowledge (Haglund, 1996).

Study have been done on self- recognition abilities of autistic children, (Neuman & Hill, 1978; Spiker & Ricks, 1984). In examining the notion that ‘’autistic children appear to lack self-awareness’’ (p.571), Neuman and Hill discovered that autistic children above the age of 5 years are capable of self-recognition in mirrors and in pre-taped images. Spiker and ricks found that 69% of their 52 autistic children studied were able to recognizing their mirror –images and

explain that ‘’… those who failed to show evidence of visual recognition to be mute or lacking in communicative speech…’’

2.10 The different modalities of creative/expressive art

The different modalities of creative/expressive art therapy include: art, music, drama, dance/movement, poetry/writing, play, and other forms of creative expression.
Performing Arts Therapies: Dance/movement, Music, and Drama

2.10.1 Dance/Movement Therapy and Autism

The American Dance Therapy Association defined dance/movement therapy as “the psychotherapeutic use of movement as a process which furthers the emotional, social, cognitive, and physical integration of the individual” (LeFeber p.280). In relation to developmental disorders, such as Autism Spectrum Disorders, dance therapy allows affected individuals to communicate and engage through a nonverbal kinesthetic medium. Lehmann observes in her aforementioned early work with dance and the “special population” that “inner thought and emotions (are) understood to be the activating motive of dance and thus the reason why dance aided in the development of individuality” (Cole p.15). Because individuals with ASD commonly lack a concept of self in relation to the external world they lack the ability to communicate their wants, needs, and feelings through typical verbal and nonverbal means and to form general connections between themselves and their environment. By accessing communicative skills through movement, dance allows therapists to meet patients on their own level of experience and establish a therapeutic relationship, which is able to foster positive progress in personal development.

The main application for dance as therapy is to facilitate communication and social contact in individuals who struggle to establish these things on their own or through other mediums. Behavior is communicative and movement is a form of behavior; therefore movement as behavior is a form of communication. In dance/movement therapy as treatment for a communication disorder, a positive therapeutic relationship between therapist and patient or client is emphasized as highly important. This is the case primarily because of the common state of communicative and social isolation most clients exist within as a result of their inability to

connect to their environment. In therapy this relationship is built initially on a foundation of shared experience, where the therapist uses mirroring to reflect the nature of the child's own movements. By engaging in this practice, crucial trust, acceptance, and a sense of empathy are built between therapist and client (LeFeber P. 280-281).

Generally, there are three main goals assumed in dance/movement therapy when addressing symptoms of ASD. On a basic level, dance/movement therapy targets motor skills that are commonly under developed in clients with ASD. This objective is addressed through activities designed to stimulate fine and gross motor movement in the client in familiar and engaging ways. Dance/movement therapy also facilitates the development of social and communication skills, ideally allowing clients to eventually increase successful interaction with other people and parts of their environment. This particular goal often contains a core of several smaller goals including increased use of eye contact, shared participation in group activities, awareness of others and self, and trust. Though these social and communicative objectives can be addressed through numerous forms of therapy, the unique nature of dance/movement therapy allows clients to build these skills on a physical kinesthetic level of expression instead of a verbally expressive level. Additionally, clients of dance/movement therapy are helped to achieve a sense of self, discussed earlier, in relation to their surroundings. This includes developing body awareness/image, self-concept, and attention to events occurring around them. All of these goals must be undertaken after a mutual understanding of trust and communication is built through movement between therapist and client (LeFeber P. 282-283).

This subject also began to show more interest in peer interaction and more attention to the facial expressions of others. Parental evaluations of this subject's behavior closely resembled the observations made by the teacher. Of the two subjects in the control group, only one student was recorded as making progress after participating in dance/movement therapy by his teacher; however his recorded behavioral gains were highly comparable to those of the second experimental group subject mentioned above (Warnick). This subject's parents observed similar positive change in the subject with the addition of increased tantrum behavior, which can be interpreted as a positive gain in the developmental process because it indicated the client moving past the infant stage into the toddler stage of development. Though these findings suggest that

the experimental group members received no sizeable therapeutic advantage over the control subjects, the results recorded by the educators show major progress in areas of significant deficits over the course of only six weeks due to dance intervention.

A similar study conducted in 1979 by Ivy Lee Cole at Texas Woman's University focused on a single subject, a seven year old boy, in one on one dance therapy sessions of thirty minutes for eight weeks. Like the first case study discussed, this study utilized numerical scales to characterize the elements of the subject's movement including his manipulation of and contact with other objects and the therapist. The observations of the therapist and close analysis of the data tables kept on the subject's performance in each session tend to show that communicative break-through were made in terms of understanding the subject's behaviors. Repetitive behaviors including thumb sucking and head hitting were decoded by the therapist as the two built a relationship of trust and affection with one another. Furthermore, this study proved that the subject was able to engage in physical contact interactions with much greater frequency and endurance than prior to therapy. This study closely looked at the techniques used by the therapist to build trust in the subject by allowing him to control his own movement and dictate the activities of the session. As described through the report, a nurturing and affectionate relationship was established between the two, which allowed the therapist to understand some of the subject's confusing behavior and foster more appropriate, less harmful reactions in the subject. This study utilized the collection of descriptive data over quantitative data to explore how dance therapy facilitated crucial communication in the life of one young boy on the autism spectrum (Cole).

Movement is a powerful tool in the treatment and management of ASD. Because the expression of feelings, needs, and thoughts is natural to much of the human population, it is hard to imagine how dance could serve as an effective medium for communication. However, for individuals on the autism spectrum, movement can become a crucial form of nonverbal language that allows them to break free of their communicative isolation and find success in interpersonal interactions. While the value of this therapy can be codified, charted, and quantified, the moving results stem primarily from anecdotal accounts of the small steps individuals are making in their everyday behaviors. Dance/movement therapy has found a middle ground of communication, a

kind of meeting place, where both people with and without ASD can interact and communicate, establishing a beneficial dialogue which facilitates understanding and therefore successful symptom management.

2.10.2 Music and Autism

Arthur Schopenhauer (1788-1860), a German philosopher and psychologist, wrote extensively on a variety of topics including the aesthetic, or appreciation of topics including the aesthetics, or appreciation of beauty, of art, including music. He stated that the role of music is portraying the essence of the cosmos.

Our body is musical; consider the heartbeat, respiration, and other physical cycles. We are primed to respond to rhythm, and children with psycho neuro-disorders are ready for a therapist to bring this experience to the surface and their consciousness. If we are to believe Socrates statement that "Education is the kindling of a flame, not the filling of a vessel," we must also believe that there is something latent within a child that will blossom and emerge with the proper 'kindling" or encouragement.

Music can provoke deep – seated emotions and liberate tension in order to help a person express what cannot otherwise be articulated. No one disputes the effect of music on people with various disorders. Aristotle stated that music affects the body and emotions. When we hear a certain music, we associate with the past events, pleasant or not, and music stirs memories that may be helpful in unlocking repressed thoughts such as anger, fear, and hostility, which can then be dealt with by working with a therapist . We can see that music is more than just something to listen to while shopping or as background sound - it is very therapeutic.

Music is different from other art forms because our feelings in response to it come solely from within and are not based on what we see. It is not the brain or the mind that responds to the arts and to music in particular; our spiritual essence does. One does not need a perfect brain to respond to music.

As children learns to enjoy classical music, they become less hyper active and their attention span increases. Muscular coordination is improved if they play an instrument, and they are able to release tensions and anxieties.

Responding to Music

Children with autism have consistently shown a sensitivity and attentiveness to music. Their special responsiveness and unusual interest in musical stimuli are noted in many clinical observations and studies of children with autism. Much of the autism literature states that children who do not respond to speech will often respond to music.

In fact, they respond more frequently and appropriately to music than any other auditory stimulus.

In addition to their enjoyment of music, these children often demonstrate a high level of musical ability. Hairston (1990) reported that many children with autism could sing a melody at a very early age. Others suggest these children can recall simple patterns of sounds with great accuracy and often display a good sense of rhythm. Further studies show that their pitch imitation is good or better than children without autism.

Music compared with other subject areas. These children also perform unusually well in comparison with many typical students. It was originally thought that this superiority was the result of savant learned skills, but research shows that those with autism who were musically inexperienced also exhibited extraordinary good pitch perception.

Hoelzley (1993) takes this one step further and suggests that musical ability is a fundamental component of autism. Research indicates children with autism usually respond to musical stimuli and often have musical abilities beyond those of typically developing children. As these children possess a special interest in music and the ability to participate successfully in musical activities, many researchers are now investigating the use of music to modify their atypical behaviors.

Why Music?

Music is a unique form of communication. Its nonverbal communicative aspect is of great value in working with those with autism because one can communicate and establish a relationship where words alone fail. The order and structure in music (sounds and rhythm) appeal as they can help individuals with autism organize their perceptions of the chaotic world, providing a safe, structured experience free of confusion. Further, music is a powerful multisensory stimulation hard to ignore. In music sounds are heard (auditory stimulation) and vibrations felt (tactile stimulation).

Moving to music includes kinesthetic stimulation and live performances provide visual stimulation.

Perhaps the most valued element of music in working with children with autism is the ability of music to provide a means of self-expression and enhance feelings of self-worth.

Unable to express themselves verbally, music can function as a vehicle for expressing moods, attitudes and feelings in a positive manner. The nature of music also allows music activities to be adapted for success at different levels of achievement, thus meeting autism at any level of severity. To function in society, one must be able to relate successfully and appropriately to those around them. Due to its social aspect, activities in music often occur in a group setting. A positive, enjoyable activity, music may persuade and motivate individuals with autism to join the group and interact with others.

Uses of Music

Duerkson (1978) identifies five general ways in which music activities can be used to help clients gain non-musical skills. First, music is a carrier of information.

Special songs can be created to include information that the client is trying to learn by presenting factual information in song lyrics or a sequence of events that the participant needs to memorize. This method works especially well with children with autism, because they seem to follow, comprehend, and react to instructions set to music.

A sequence of events (like brushing your teeth) to music helps these children recall information and behave in a socially acceptable a manner (such as a waiting your turn).

Academic concepts can also be taught and reinforced in musical activities such as games, chants, dances, or songs. Pairing songs with visuals and movement can enhance their understanding of specific words and the meaning of songs. Because structure and organization is a basic need for people with autism, a structured use of music provides predictable experiences that promote positive behaviors. By using a standard lesson format and familiar music and activities in a classroom setting, music can be presented in a clear and predictable way that allows students with autism to grasp onto the comfort of a consistent routine; thus decreasing inappropriate behavior provoked by anxiety and confusion. Teachers in classrooms often sing transition songs to help students with autism transition from one activity to the next in a smooth manner.

Second, music can serve as a reinforce or motivator. Because children with autism find music pleasurable, positive skills and behaviors can be reinforced and rewarded through listening or participating in musical activities. In addition, most children with autism do not respond to social reinforcements such a praise or affection.

Researchers have demonstrated the successful use of music to eliminate stereotypic behaviors and to encourage participation in activities that help improve language, social, and/or motor functions.

Third, music can serve as a background for learning. Playing music as part of the background of a learning environment masks unwanted sounds, breaks monotony, and establishes a specific mood. Carefully selected music can facilitate learning; improve task performance, concentration, and attention span.

Fourth, music can function as a physical structure for a learning activity. When ‘choreographing’’ special motor action to music, the rhythmic structure of music can improve physical rhythmic activities such as respiration, walking, and relaxation. For a child with autism, rhythm can be used to accompany speech, encourage verbalization and appropriate pacing.

Fifth, by examining the clients interactions with the music therapist, other individuals in the group, and musical material, music serves as a reflection of the client’s progress towards the therapeutic goals and his/her level of functioning.

Some research has been done on how music engages the human brain. Results have shown that listening to music increases cerebral blood flow, stimulating neural regions associated with pleasant and unpleasant emotional state. These regions of emotional perception are often dysfunctional or underactive in people with autism, which may provide part of an explanation why musical stimuli allows people with autism to access more social functions related to affect and emotion (Demaine P. 226).

Geoff Barnes describes music therapy as "a very flexible multisensory mode of treatment that can be tailored to teach skills, develop positive relationships, and facilitate child centered initiative and choice-making. Music therapy can promote and motivate communication, shared attention, and social interaction, which are critical areas of need and development with children with autism." (Barnes). For organizational purposes we can divide these goals into four major categories, including language and communication, social skills, self-regulatory skills, and cognitive and motor skills. Each of these four areas are primary areas of difficulty associated with ASD in general. A client on the autism spectrum may have difficulty in one, some, or all of these areas, which is why a highly individualizable therapy like music therapy is often valuable.

Because social skills are often a prominent area of impairment with a diagnosis of ASD, effective ways to teach skills which allow clients to interact successfully with others are highly needed in the treatment field. Through music therapy opportunities for social contact can be created between client and therapist or client and other peers.

Music and art can help increase learning for children, particularly those who have autism or other learning disabilities, since these activities provide unique sensory input and stimulation to the mind and body. Music and art can engage physical and mental focus for tasks. When children have success with music and art, you may see an increase in self-confidence, in the use of proper social skills, and in overall communication (McCord).

Singing and dancing to music helps children develop proper voice control, motor planning/control, and fine and gross motor skills. Repetition through song can help children with autism or other learning disabilities learn to anticipate words, rhythms, and concepts. This can

help them participate more easily in music-based classroom activities since they know what to expect.

Art activities, ranging from drawing to acting, require different levels of complex thinking and problem solving. Art allows children to show thoughts and feelings in a creative way, often through nonverbal communication. Children with autism or other learning disabilities can express emotions through art that they may not otherwise be able to state.

Recent studies show that children with autism can be more eager to listen to music than their peers. These same studies indicate that children with autism are more likely to be able to differentiate variations in pitch. Music-themed lessons can help increase patience, voluntary attention, memory, social interaction, eye contact, and the enjoyment of learning (Evans, 2007). Through music, children can work on sound imitation and speech production skills as well. However, even though many children with autism, or other learning disabilities, show improvements in learning by participating in music-related activities, there is still a need to gather more evidence to document the long-term effects of music as an intervention. Art can also play a huge role in the development of language, expression, confidence, motor planning, and fine motor skills. For students who have difficulty learning, art can open up a new way to access the curriculum. Art provides a creative outlet for the proper expression of rage, sadness, excitement, and other feelings. In therapy, art can provide healing. The creative process can trigger a sense of achievement and an increase in self-esteem. For children with autism or other learning disabilities, art can provide a nonverbal outlet for feelings and emotions.

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autism or other learning disabilities, nor is there is port to deny that it makes a difference for some students (Bell, 2003).

2.10.3 Drama Therapy and Autism

Drama therapy is a complex form of performing arts therapy that integrates music, movement, and drama to create a unique method of treatment. This type of therapy utilizes "the use of improvisation, role-play, mime, music, and movement, storytelling, masks and rituals, puppetry, theatre games and scripted drama as a therapeutic vehicle" (Katie O'Leary 2013)However, drama therapy is not simply the sum of all its many parts. Some drama therapy focuses on the idea that social and communication skills can be taught by direct experience through drama therapy while others seek to facilitate the developmental processes missed by those with ASD and other special needs. While these two theories may take different approaches in their practical applications of drama as therapy their overall goals for clients center on many of the same objectives. In this particular discussion of drama therapy as related to treatment of ASD, the researcher focus primarily on the social and communicative benefits of this therapy instead of motor or behavioral objectives. This is due to the fact that the way in which drama therapy addresses social and communicative goals is unique to this type of therapy. However, motor and behavioral goals can certainly be addressed through drama therapy sessions.

Drama therapy used in the treatment of ASD has found great success for a number of practical and theorized reasons. The nature of drama therapy has been proven through practice to appeal to how many people on the spectrum learn. Like dance and music therapy, drama allows clients to communicate through means they are comfortable with, which creates more potential for therapeutic progress. Because children with ASD are unable to develop an understanding of social constructs in the same way as their typically developing peers, these social skills must be explained, taught, and practiced in order for them to be mastered. By rehearsing these skills through role-play and acting exercises clients are able to learn lessons that they missed in their development. In recent years, research has suggested that the cause of ASD may be linked partially to the impairment of the mirror neuron system in the brain. This part of the brain allows people to recognize, understand, and relate to the action and feelings of others, producing an empathetic connection. (Katie O'Leary 2013) if impairment in the mirror neuron system and

ASD are in fact linked drama therapy is an important form of therapy to employ. Drama therapy "actively engages mirror neurons because clients' bodies are actively, physically engaged in the therapy process" (Katie O'Leary 2013)Through the activities utilized in drama therapy clients are often required to take on the role of another person or character activating the mirror neurons within the brain (Katie O'Leary 2013). While this is just one of the neurological explanations of ASD it does create a strong theoretical case for the importance and effectiveness of drama therapy as treatment.

Drama therapy is highly effective at targeting goals involving social and communication skills. However, there are two strategies or philosophies of treatment that therapists typically practice under which may affect some of the methods they use. One strategy is to use drama therapy as a teaching technique to teach the social and communication skills that are lacking in a client. By completing exercises that cover a range of different social situations, such as simulated classroom or home scenarios, clients become familiar with the appropriate social and communicative behaviors expected in particular situations. Because many believe people with ASD learn best through direct experience and physically doing what is expected of them, drama therapy as a kind of skill teaching method is a logical approach to teaching social skills. The other strategy focuses more on the developmental progress of clients rather than specific skill instruction. This developmental theory is based on the idea that all learning, including cognitive, emotional, and social learning is cumulative and builds on early basic development. Therefore children who do not achieve a strong grasp on early developmental skills will be restricted in their development later on (Katie O'Leary 2013).

One example of how drama directly impacts the brain is through imitation. In theatre, imitation is particularly useful in creating different characters. When a child imitates a caricature (a cowboy, a clown, or someone they know), "visual information concerning the emotions" of those people become "directly mapped" onto the same "motor neural structures" that are responsible for the experience of the actor him/herself (Katie O'Leary 2013) Therefore, the characteristics of those imitated are incorporated into the actors' own character. Not only does this establish empathy, but it allows for actors to incorporate into his/her social situations characteristics of the imitated that he would not have used otherwise. (Then go into shifting

perspective between self and the other) Spontaneity also comes into play when treating children on the autistic spectrum. This aspect of acting assists the autistic child to shift his/her point of view from a polarized state. People with autism often display insistency for sameness and a black-and-white way of perceiving the world. The "sameness" may be presented in topics of conversation (autistic kids may have pre-thought out conversations about a particular subject, such as different types of trains) and physical movements (an autistic child may have repetitive tics in order to make sure something about the world is consistent). In addition, a black-and-white way of thinking may involve the lack of incorporating symbolism into thought. Acting, and especially improvisation, encourages the performer to step outside of his/her comfort zone and play "in the moment". Therefore, an actor will have to let go of his/her desire of sameness if he/she wants to succeed, because acting involves variety in conversation (if he/she is improvising), body movements (an awareness of his/her body movements helps break the "tics" involved with autism, and a symbolic way of thinking (an actor must be keenly aware of the meaning of words "in the moment".

Drama Therapy can assist young children to use language in a task productive way. One neurological symptom in autism is an enlarged amygdala, which is responsible for assessing emotions such as fear, anger, and anxiety. When an autistic child becomes overwhelmed, his/her anxiety can overtake the ability to make rational decisions, and the autistic child may respond unproductively to tasks (screaming, crying, pacing). One exercise described in the book "Social skills, emotional growth, and drama therapy" addresses this issue directly. A child among a group is asked about an experience that was particularly hard for him/her. Then, the child sits in the director's seat, casts his play with his peers, and instructs the child who is playing him how to act. For example, if the director was frustrated in the situation, the child will ask his actor to behave accordingly. This way, the child can observe, from a third-person point of view, his emotions and put a label on them. This promotes a balance between approaching

The whole purpose of therapy through drama centers on the idea that art is communication. Drama therapy uses theatre techniques in order to create a safe space to work through individual issues in order to find new perspectives or alternate solutions. Katie O'Leary highlights several focuses of drama therapy itself in Drama Therapy Theoretical Perspectives, an

in depth look at the history and theories behind the successful method. In order for a student with an ASD to learn to communicate using theatre, the following four components of drama are highlighted by Silverman as aiding an individual through the therapeutic process: performance, projection, narrative, and improvisation.

With performance, the leader is able to determine if the individual is working with others, cooperating, and committing to the performance. SENSE Theatre began with the aim to teach students with ASD core skills those on the spectrum typically lack by pairing the individual with a neurotypical student as a model during a theatre process. The study showed that after the process, students on the spectrum showed an increase in ability to recognize facial expressions and theory of mind skills. The neurotypical peers act as those who can model actions and expressions for the students with autism (Katie O'Leary 2013)

Improvisation in theatre is nerve wracking for most people at first. We visualize the idea of getting up on stage and creating a completely fluid scene without any preparation as a nearly impossible task. However, we are constantly using improvisational techniques throughout our daily lives, such as conversation and play skills. Just as theatrical improvisational techniques, these natural "improv" skills can take extra practice and time to develop, especially for those with ASDs. Improvisation in drama therapy begins with warm ups in order to help everyone prepare for the session. "It also provides a way for clients to connect creatively with the current emotional state and spontaneously expresses this state through movement, sound, image, or improvisational play" (Katie O'Leary 2013) One of the most important lessons to take away from improvisational work is the ability to be flexible and adaptive. When the individual can apply this ability to real life situations, the result can be invaluable.

Taking all of the previously mentioned drama therapy components into account, it is important to finally include the benefits a child with an ASD brings to the theatre. Katie O'Leary (2013) helps to remind those in the drama therapy field of how capable children with an ASD can be when it comes to theatrical talent. The spectrum is such a diverse one that practically every child has an ability that establishes his or her theatre skills. Those children on the spectrum who are classified as higher functioning already speak with a unique intonation that is expressive. Many "reproduce specific vocal intonations and qualities" (Katie O'Leary 2013)

perfectly capturing the essence of a character. Others, particularly younger children, use their "media obsessions" in the theatre to explore these drama therapy elements. A child who has an excessive passion for Batman uses the super hero as a medium to communicate and excel in the theatre activities. Other unique skills include the ability to memorize dialogue (echoic abilities), adherence to rules, and adaptability to routines in order for rehearsal and plot performance. No child diagnosed with autism is the same –some children may possess all, some, or none of these qualities. It is important to remember that no routine of therapy is flawless, either. Just as any other technique, some students will excel in drama therapy while others receive little to no stimulation from the programs. The growing partnership between drama and Autism Spectrum

Disorders need to continue to grow, providing these opportunities as an option for children and their families to explore.

2.11 Intervention Strategies

The nature of autism presents numerous challenges for educators. However, much of the time, a teacher's fear and stress in teaching students with autism stems from a lack of knowledge about the disability and the specific student. Once sufficient knowledge is obtained, the teacher can confidently modify his/her instruction based on the needs of the individual student and feel better equipped to interact and help the student with autism.

The interventionist Learn about the disability. An educator can talk with the special needs teacher at the school, ask the student's parents, read books, watch videos, etc. What challenges does the disability bring into the classroom? What are some methods for overcoming those difficulties? And he should know the individual by asking people on the child's educational team such as the therapists, aide, other teachers, etc. The more you know about the child (strengths, weakness, motivators, interests, etc.), the more you can structure and adapt a way of teaching that suits the child's needs. The parents are invaluable resources on the child.

There should be active communication and collaboration between the teacher and the parents. Review the student's Individualized Education Program (IEP) which provides information on the child and the annual goals that the student is working on. Your educational strategies should target the goals listed on the IEP which provides common objectives for all the

teachers of that student and similarly encourage the student to work on his/her goals in all educational settings. The music class can also serve to develop non-musical skills. Be aware of the student's sensory needs, communicative skills, aspects of behavior, social skills, etc.

A structured, clutter-free classroom environment with minimal distractions helps these students stay organized and focused. This can be a challenge in the music classroom which has more flexibility than the general classroom.

Seek a functional communication system between you and the child with autism. Often a communication system is already in place that is used by the parents and other teachers. Because a consistent, predictable communication system is important for students with autism, adopting a form of communication familiar to the student and adapting it to music is highly efficient and reasonable. Students with autism are primarily visual learners. Using visuals to communicate and teach is a necessary and vital strategy that will make life easier for both you and your student. Visuals, such as pictures and written words, can be used to support routine and schedules, the meaning of academic concepts, giving instructions, and establishing rules.

Modify and adapt the curriculum, environment, activities, and materials to meet the needs of the student with disabilities. Vary the level of participation expected to what the student can handle and achieve successfully. Adapt the way instruction is delivered by using visuals, having a structure and routine, being consistent, preparing the student for any changes, and breaking down tasks into small steps. Modify how students with autism can respond to the instruction by creating alternate ways of meeting the outcomes or goals. For example, if a child with autism has trouble writing an assignment due to poor grammar skills and unreadable penmanship, have him/her draw the information instead. Use the same materials for all students but make the goals for the student with autism less complex. If the class is learning a dance with Orff ensemble accompaniment, have the student play a simple part of the music, such as an ostinato pattern, or just focus on learning the dance with assistance from a peer buddy.

Make sure students with autism understand the expectations. Use concrete, simple language, speak at a moderate pace, and do not give too many directions at a time.

If there is a multi-step task, give the directions in small sections. When these students know what is expected, they will exhibit less behavioral problems which are caused by anxiety and confusion. Promote independence by planning "fading prompts" which gradually wean them away from your assistance. When they do need assistance, do activities with them, rather than for them.

Find a way to motivate the student with autism. What things interest and motivate the child? Ask the parents and other teachers what methods they use as motivation and bring their techniques into the music class.

Give frequent positive reinforcements. This helps the child with autism build self-esteem and confidence in his/her ability. Reinforcements can also help the student learn what you expect of him/her and improve skills such as social interaction, appropriate behavior, etc. Discover what good rewards for the specific child are.

If you have an aide, be glad! An aide is a useful resource in helping the student with autism complete tasks, display appropriate behavior, practice social interaction, etc. As an adult, he/she can also function as a teacher's assistant in managing the other students in the classroom. A second pair of eyes, hands, mouth, and ears provides additional help and assistance to the classroom teacher.

Allow extra time for students with autism to respond. Due to their impairments in speech, language, perception, and sensory integration, processing information and the meaning of instructions takes time. Similarly, give them time to cope and refocus when overwhelmed. Do not request information from them when they are upset.

Develop predictable and structured routines. Use a consistent lesson format that allows the student with autism to grasp onto the safety of a structured experience.

Put the class routine visually somewhere in the room where the student can refer to.

Students with autism have difficulty transitioning between activities. Give them prior warning so they can prepare themselves and finish up the task at hand.

Teachers in general classrooms often sing transitional songs between activities to make transitions smoother. By choosing a transitional song for a specific activity and using it systematically, the student knows what to expect and is put at greater ease.

Peer mentoring or a buddy system is a helpful and useful technique in which the teacher pairs a student with disabilities with a typical student. There are benefits for both parties involved as they learn from each other. The typical student is exposed to individuals different than him/her, gains awareness and respect for those with disabilities, and builds confidence and joy in helping others. For the student with autism, a peer is an excellent role model. Peer buddies can help the student with autism learn a subject or accomplish a particular task. In doing so, the teacher is given greater room and flexibility to focus his/her attention on more students rather than spending all his/her time helping one individual.

As verbal communication is a challenge for students with autism, consider all behavior displayed by the student with autism as a form of communication. What is the student trying to express? Identify what causes inappropriate behaviors (are there any distracting things?, is it sensory overload?, confusion?). Once you recognize triggers that ignite meltdowns or tantrums, you can work to avoid placing the student in a situation where he/she will be provoked. Be sure to also ask the parents, aide, and others teachers for information on what upsets the child.

Remember to give ‘breaks’ to meet their sensory needs. Allow the child with autism to go outside or engage in physical activities to dispel stimulation build up and sensory overload. Breaks will improve their attention and concentration, help them be more organized, less anxious, and decreases the possibility of tantrums and inappropriate behaviors. Stay positive. Your attitude as a teacher is reflected in your teaching and interaction with the student. A positive attitude generates more success than a negative attitude.

Empower students with autism to be active participants in the classroom by giving tasks that allow them to be successful. The more these students experience success, the more you can gradually expand their circle of interests and abilities to try new things. Successful experiences build confidence and self-esteem. Give students with autism the same respect you show to typical students In addition to these students feeling equally treated, you are also a model for

your typical students. Be the leader who creates an environment that allows the student with autism to grow and feel accepted.

Accept students with autism for who they are and look beyond their disabilities. Above all, they are individuals. The concept of 'putting the person first before the disability' was the reason the Education for All Handicapped Children Act was renamed Individuals with Disabilities Education Act. According to Adamek and Darrow, "the purpose of this approach is not to minimize or deny a disability, but to affirm that the student is more than the disability and that the disability does not supersede all of the other human attributes that the child possess."

Help them develop their talents, interests, and strengths which can lead to later success in life. Do not box their abilities and potential by their disability. Be creative in your instructional strategies. Because autism is a spectrum disorder, each student with autism is different. No one program or approach will meet the needs of every individual with the disability.

Educating students with autism is a rewarding challenge. This population of students compels educators to reevaluate themselves (attitude, character, instructional methods, etc.) and reexamine their teaching philosophy. These children need someone to have faith in them, and their parents need someone to stand by them in support.

CHAPTER 3

Methodology

3.1. Research Design

A various methods have been developed to assess the influence of creative art on a child with autism; each has their own advantage and drawback. This Chapter describes the research design and analytic procedures used to address the research hypothesis mentioned previously in chapter one.

The researcher choose a single subject design (A-**B-A-B DESIGN)** for two reason first a popular method in the field of special need education and counseling when the researcher was attempting to change the behavior of an individual or a small group of individual and wish to document that change is a single subject design secondly the reason the researcher choose this method was the fact that No two children on the autism spectrum are the same and therefore, each of the resources used when working with them will need to be tailored to meet individual need.

Description single subject design the most powerful design strategy (best method for assessing treatment effects) is the ABAB design.

The ABAB design is a shorthand way for stating that we first determine a baseline (A), and then we introduced the treatment for the first time (B). After the criterion of ability is achieved we then withdrew the treatment and reintroduce the baseline condition (A). Finally, after baseline stability is reestablished, we presented the treatment condition (B) for the second time. This ABAB design, when used, is a very powerful design that allows the researcher to make strong conclusions regarding the treatment effects.

With this design the researcher demonstrates the degree of control over behavior in two ways—first by *introducing* the treatment condition, then by *removing* it. Again, we repeated the procedure. After the baseline is established (A), the treatment condition (B) is *introduced* and the extent to which the treatment influences behavior (the extent to which behavior departs from

baseline) is assessed. Then, following stable performance, the treatment condition is *removed* (baseline condition (A) again presented). Performance should then return to the original baseline. The final phase requires that we again present the treatment condition (B) and end the experiment with it.

Applied psychologists are often interested only in a small number of individuals. They need a method sufficiently flexible to allow treatment of individual cases, one that can be altered quickly to adjust to the responsiveness of the individual. Large sample statistical procedures do not have this flexibility.

3.12 Advantages and Limitations

3.123 Advantages of the single-subject approach

Those who use the single-subject approach find it both a powerful and satisfying research method. One reason for this is that the method provides feedback quickly to the investigator about the effects of the treatment conditions. The experimenter knows relatively soon whether the treatment is working or not working. Day-to-day changes can be observed first hand, quickly and in individual participants. If changes are necessary on a day-to-day basis, they can be made. Seldom do scientists have available procedures that do this. In contrast to the single-subject approach, a large sample statistical approach may take weeks or months of testing participants, calculating means, then performing statistical analyses, etc., and unfortunately, often nothing may be known about the effects of the treatment conditions until the final statistical analysis is complete. Even then, as we have seen, the derived knowledge is limited to statements regarding group performance and not to the performance of specific individual participants.

The single-subject method also allows us to draw strong conclusions regarding the factors controlling the dependent variable, yet the method does not use random assignment. The method allows strong conclusions because investigators employing it use procedures that provide rigorous control over environmental-experimental conditions with great emphasis on obtaining stable behavior with each participant. To be an acceptable scientific work, the research must demonstrate for each participant that behavior is controlled by the treatment condition and he or

she must also show both intra- and inter participant replication. That is, control must be shown both within a single participant and also between the participants.

3.124 Limitations of the single-subject approach

One obvious limitation of the single-subject approach is that the method is unsuitable for answering actuarial types of questions. Questions such as, "How many of the one-hundred people exposed to a particular treatment will respond favorably and how many will respond unfavorably?" A similar question relates to studies comparing two or more different treatments on the same behavioral measure. For example, which of the various treatments is the most effective? Ineffective? Debilitating? The method cannot be used if you are interested in treating an entire group of participants, such as a classroom, in an identical way on a daily basis, i.e., when changes in procedures are made, they are made for everyone in the group at the same time and for the same period. A different method is also required if "after the fact" studies (ex post facto, correlational, passive observational) are of interest. Moreover, the single-subject approach makes heavy time demands. It may, on occasion, take several months to completely test a single participant under the various conditions of interest. Often researchers are unwilling or unable to devote the required time. In addition to these limitations, there are also some recurring problems. Establishing a criterion and acquiring stable baselines for the response of interest are sometimes very difficult. Further, determining whether variability in behavior is intrinsic or extrinsic can be troublesome. Nonreversible (irreversible) behavior poses its own set of problems and it precludes the use of a design in which the researcher removes the treatment to observe a return to baseline levels of responding. Failure to obtain intra- and inter-participant replication for whatever reason creates problems for the single-subject approach. Sometimes decisions regarding the necessary number of both intra- and inter-participant replications are largely subjective. Nevertheless, in spite of the limitations and problems described here, the single-subject method does provide researchers with another powerful way to assess behavior

3.2. Description of the Study Area

The study took place in one of the three nongovernmental autistic centers in the metropolis. Nehemiah Autistic Center is a nongovernmental organization located in Addis

Ababa, Bole sub city founded on June 16, 2011.the center established Under the mission of provide care, instruction and support for children with autism and related disabilities , promoting cognitive, emotional and relational growth through individualized programs, while providing counseling and support to parents, especially mothers as they deal with these particularly difficult challenges; teaching the parents to become active participants in their child's education and development; and finally, to raise public awareness of the nature and prevalence of Autistic Spectrum Disorders . And the vision of aspires to see every ASD child is cared for, parents of ASD children are supported and awareness about autism created in the society. The center started with six autistic children and currently they give training and treatments to forty autistic children. They have more than 400 autistic children on waiting list.

3.3 Participant Selection

The Nehemiah autistic center has 40 autistic children they categorized in three level of severity according to DSM-V. Level one 'requiring support' level two requiring substantial support' level three requiring very substantial support'. The researcher selected the level one autistic child requiring support by Nonprobability Sampling method. In Level one there were six students, all in the intermediate age range between 5-14 participating in this study. Four of the students were boys as the two participating student were girls. All of the participants were diagnosed with an Autism Spectrum Disorder and they all were considered to be ''requiring support'.

The researcher recruited two volunteer students who took children theatres from school of visual & performing art in Addis Ababa University. And the teachers from the center collaborate often.

3.4 Procedures and Materials

After the center for a child with autism were located and got approved of the study from the center's director obtained some ethical clearance was sought from the parent and the director and after confirmation work shop was arranged with the three assistant/teachers of the students about why and how the study was taking place. The second and third workshop was arranged for observers and different volunteer professionals respectively.

All the sessions except baseline and reversal stage (A) were designed with different creative art therapy. As noted, when using the single-subject method the effects of the treatment must be shown in individual participants. To accomplish this experimenter must have considerable control over the experimental situation at all stages of the research.

As with other research methods, the dependent variable must be clearly defined in terms of operations that objectively identify the occurrence or nonoccurrence of the response.

In single-subject research the dependent variable is often "rate of responding" and great emphasis was placed on steady state (stable) performance rather than behavior in transition, i.e., in the process of changing. A total of 40 sessions were conducted.

Data collection during Baseline, after treatment, and during treatment withdrawal

When assessing steady-state behavior in a given condition the behavior is assessed relative to some comparison point. With the single-subject approach, the comparison point is the baseline condition. To establish a baseline, repeated observations of the natural frequency of the behavior of interest (dependent variable) are first made. In effect, you observe the frequency with which the behavior occurs before the treatment (independent variable) is introduced. This baseline serves as a sort of benchmark against which to ascertain whether the subsequent introduction of the treatment condition has an effect. The behavioral effect may be either an increase over baseline responding (facilitation) or a decrease.

Materials used

Music: nine songs self-developed by the researcher & recorded in studio with volunteer musician which are appropriate for dependent variables and the song written choosing simple, familiar tune with between four and ten key words containing the participant names in the song and placing key words and phrases at the end of the line and to be repetitive with sing less, stress and go slow. (Fern Sussman, 2004)

Some popular songs for children: Head and shoulder, if you happy and you know it ….
Mirror: human size mirror to see their picture for imitation

Mask: different size face mask for eye contact

Colored plasters

Ball: - balls for turn taking

Drawing materials: - color pencils, A4 size papers, and scissors

Candles, bubble makers

3.5 Production Content

The researcher went through numerous web sites and books designed for children's theatre. There were 15 lessons, each lesson have different types of art including warm up exercise, dance, Game, music and painting or sculpture. And tried to offer opportunities for the child to take turn, cue the child to take turn and keep it fun!

3.6 Structure of the session

A ritual is an act of performed regularly, usually at designated point in the proceeding of group. Ritual may be very ordinary act, such as saying hello or sharing a snack, which become ritualistic by virtue of the fact that they are repeated on a regular basis, carried out intentionally and with meaning. Indeed, it is a familiarity and repetition of the act that the power of ritual is held. Children include with autism, often anticipate, participate in and really enjoy a ritual appreciating the familiarity of the act. Efficacy is an issue here, since children often gain satisfaction from knowing what is expecting and how to respond.

There are 15 activities designed for the objective of effecting the dependent variables

All the session should generally went through the following steps:

Greetings

A group of session should begin with some kinds of opening ritual: like going around the circle to say "hello ''tena yisitilign '', ''tadias '' my name is …….. To individual member singing hello song greeting the group and saying how they feel that day or something they have recently done.

Warm up exercises

Warm-up activities are designed to the individual to focus on him; the other people in the group and the room .They can also warm up the body, voice or imagination, whichever is needed for the main activity that is to follow. Warm up may involve listening to sound outside the room, in the room and within themselves, or relaxing and listening to a piece of music or guided visualization

Developing Trust

In a sense, the way that the group is run should establish a degree of trust between the group members and a group cooperation .Activity such as leading someone who is blindfolded, sharing information about you and being the focus of an activity all help to build trust.

Focus skills

The focus skills address the dependent variables in the study that are Socialization; Eye contact; Imitation, Turn taking and Knowing self. The activities includes painting /coloring/sculpture /collage, dance, games, story telling's. It is worth thinking about repeating activities since repeating and routine are such important parts of the work with autism.

Ending

Just as there is an opening ritual to each group, so there should be some kind of closing ritual. a goodbye song or simply a plenary of what has taken place in that session or cleaning away the space. Making a good ending to a session is crucial part of the work because knowing when something has come to an end is always important for someone with autism.

3.5 Instruments of data collection:

The behavioral record chart is developed for this study following the protocols to be followed in behavior recording .this chart has provisions in it to record each dependent variables occurrences of the targeted problem behaviors as and when manifested . This chart developed to be used in all the stages of the intervention. It contain learners name, person collecting data, Target behaviors, date, time started and ends, frequency count for each activity.

The data sheet contains the child's name, the person collecting data, date, time start and ends, frequency count and activities for each target behavior and the activities for each variable are as follows.

Eye contact: looks at adult who is talking to him or follow adult gaze when adult is looking at something or watch other children playing & looks at adult's face when trying to get his//her attention

Turn taking: takes turns in gross motor games or take turns physically prompted or in simple ball game or take turn in more informal structured play

Imitation: does perform simple gesture on cue or does perform more complex gestures on cue or does perform simple facial expression

Instruction following: follow simple instruction given or respond when his name is calling or could bring something on request from another room

Recognize self: recognize mirror image /picture of self, identifies /defends own possessions or show preference for people or request toys /activities /food he wants

Engaging in social interaction can shake head for 'no' and yes or waves and say bye-bye or does he say thank you.

The researcher was making sure that characteristics in the checklist were constructed in such a way that the observable behavior demonstrating those characteristics clearly.

Inter-observer reliability

The researcher used inter-rater reliability to ensure that observer making subjective assessments are all were in tune with one another. the inter-rater reliability helps create a degree of objectivity Inter- observer reliability was calculated for 20% of the sessions for each child, Across all the phases including the follow-up for both dependent variables by measuring the occurrences eye contact (in seconds) .

One session was chosen from each phase and follow-up on a random basis. The Percentage of agreement was obtained by totaling up the number of Seconds of eye contact recorded by the researcher, dividing it by the total number of eye contact recorded by the independent observer and multiplying it by a 100. The percentage of agreement between the observer and individual observer was 78.6%.

3.7 Method of Data Analysis

Data Analysis

Data analysis was an ongoing, complex process as it involved "organizing what you have seen, heard, and read so that you can make sense of what you have learned."

New information arose with each interview and observation. Questions grew with the queries I sent and received back.

Visual analysis

The data analysis was done based on the research hypothesis and the research design.

Visual analysis is the process of looking at a graph of the data points to determine whether the intervention has altered the subject's pre intervention pattern of scores. Three concepts that help guide visual inspection are level, trend, and variability.

Level

You might examine the **level** or the amount or magnitude of the target variable. Has the amount of the target variable changed from the baseline to the intervention period? Alternatively, the level of the phase scores may be summarized by drawing a line at the typical score for each phase separately.

Trend

Another way to view the data is to compare trends in the baseline and intervention stages.

A trend refers to the direction in the pattern of the data points and can be increasing, decreasing, cyclical, or curvilinear. When there is a trend in the baseline, you might ask whether the intervention altered the direction of the trend. When the direction does not change, you may be interested in whether the **rate** of increase or decrease in the trend has changed. Does it alter the slope of the line?

Variability

The interpretation of visually inspecting scores may depend on the stability or variability of the data points. By **variability** we mean how different or divergent the scores are within a baseline or intervention phase. Widely divergent scores in the baseline make the assessment of the intervention more difficult, as do widely different scores in the intervention phase. There are

some conditions and concerns for which the lack of stability is the problem, and so creating stability may represent a positive change.

Results were plotted on x-y plane where the x-axis is baseline & intervention time lines and y-axis is the magnitude of change independent variables. Then patterns of data points will be visually analyzed for changes in dependent variables.

3.8 Contents of the intervention

The 15 Activities or interventions used in the session of intervention phase with objective and instructions were as follows. And their lyrics are attached in the Annex.

1) Hello song

Children often respond better to being sung to rather than talk to. Anything can be said in a hello song since it is really an opening conversation addressed to the children in sing song way. This can be done daily for the opening of the session.

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation.

Instruction- A hello song may simply involve singing hello to the children in the group, naming each in turn: hello Abebe, how are you?

You may or may not require a response from the child, depending on his ability.

You should say hello to all members of the group, including other adults or helpers present.

Variation- Alternatively, a hello song may a familiar song, particularly one favored by the children, which is sung at the beginning of each group. With older and more able children, the researcher some time used a collection of three or four songs and asks them to choose which we will sing that Day.

2) Musical names

Another way of saying hello to children and pointing out their presence in the group is to find an individual rhythm for each child's name.

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation.

You need - A variety of instruments, one for each member of the group .

Instruction - Choose an instrument for each child. Choose one that will match the sound and number of beats in the name.

Instruments can also be matched to the personality of the child.

Sitting in a group, say hello to the child, saying their name and using the instrument.

Repeat a few times and at the beginning of each group.

3) Rolling the ball - The liveliness of a ball rolling the floor creates a social connection that is also quite gentle.

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation.

You need - A special ball, the same ball used each week.

Instruction- Begin the group each week by sitting on the floor and rolling the ball to individual children, saying hello as you do so.

Encourage the children to roll it back, offering them support if necessary. However, it often pays to wait so allowing a little time for the children to roll the ball back by themselves.

4) Move and touch

This is an activity for more able children and is a good way of saying hello to the space and to each other.

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation.

Instruction- Begin groups by telling the children to go and touch different part of the room: "touch the window ". Change this to different parts of people: "touch Abebe's leg".

5) Goodbye songs

As with hello songs, a goodbye song can simply be singing goodbye to each child is fun.

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation.

Instruction- Use a special goodbye song tune to sing: Good bye Hellen. See you tomorrow.

Go round the group, singing to each child in turn.

Variation- You can also use a set song which you sing at the end of the group, though you should always say goodbye to each child as well, naming them.

6) Blowout the candle

Children are often drawn by the liveliness of the flame and quickly understand what is expected of them in this activity.

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation.

You need- A thick candle that can be used for many weeks and which will provide continuity to the ritual, an automatic lighter.

Instruction- With the children sitting in a circle, so that everyone can be seen, takes the candle on a holder round to each child.

Sing goodbye to the child and encourage him to coordinate the blowing out of the flame with the ending of the song.

Comment - The ritual really works best in space you can darken.

7) Gifts

The act of opening and receiving something can be meaningful even to a child who is quite withdrawn

Objectives - Help the children to develop eye contact, turn taking, instruction following and imitation.

You need - A special box a lid and items to go in the box such as: small sweets, pieces of fruit, the children's names on individual labels, and small interesting objects such as feathers, flowers or ribbons.

Instruction- Pass the box round the group, with each child encouraged to choose one thing from it as a gift.

Variation- You can provide a "pass the parcel" package from which children remove a sheet to find something for themselves.

8) Photo album

Many children with autism, who are withdrawn, relate more readily to photographs of people that to real-life people and it is often a good idea to make a photo album of the children when a group begins to meet.

Objectives - Help the children to develop eye contact, turn taking, instruction following and imitation.

You need - A camera, some labels and a scrapbook.

Instruction - Take photographs of all the group members, children and adults.

Compile an album of photos and names, one per page.

Use the album to support some of the group's activity. For example, greetings can incorporate a photograph, Abel's picture " (looking at her photograph).

"Is she here today?"(Looking for her). There she is! Hello Aster".

Ask them whose picture is this? And ask go and greet him

Comment - Talking to someone via a photograph slows down the interaction, giving the child a little more time to process what is being said and that it is being said to them. the researcher find that a photo album of the group, which children look through at leisure, also helps with the learning of who is actually present and what their names are.

9) Pairs

Lots of fun can be had with this playful activity

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation and socialization

Instruction - Put the children in to pairs. The leader calls out different body part- feet, hips, back, nose and so on – and the children must match those parts of their body together

Pairs wait for the next body part to be called.

Comment - Very often, children who do not quite understand the activity at the outset quickly learn what is expected and have fun with it. Be aware, however, of children who do not respond well when touched since this is essentially a touch exercise.

10) Mirroring

Autistic children are very fond of be in front mirror

Objective -to create eye contact, imitation, socialization, knowing self and turn taking

Material needed - One big mirror enough to see them the whole body

Instruction - Place them the children in front of the big mirror and easy to make eye contact so that to give any instruction you want like asking who is who in the mirror.

11) Different activities at a time

The song is developed in such a way that different activities in the class room

Instruction - Ask the child to do according to the song

12) Creative effects moving

Material needed - A4 paper large bowel, oil paint, water, back ground music with the work of Wolfgang Mozart or Ludwig van Beethoven or other

Instruction - Place water in the large bowl inside the working room and drop different oil paint over the water as the children wish. The child makes a line and damps their paper inside the water according to their turn. So they can enjoy the effect create by the interaction of the water and paints after that they can show each other their works. Use the background music with known composer during art work.

Objectives- Developing patience turn taking eye contact and socialization

13) Creative effect moving # two

Material needed - Potato, cutter (to be used by the interventionist), water paint, Hared paper

Instruction - Ask the children to form a group of two and ask to sit in front of each other and to share a single paper and ask to mirror whatever the other student doing on the half of the paper. Use the background music with known composer during art work

Objectives- Help the children to develop eye contact, turn taking, instruction following and imitation.

14) Creative forms

Material needed - Balloon, glue and piece of paper, back ground music with the work of Wolfgang Mozart or Ludwig van Beethoven or other

Instruction - Ask the children to inflate the balloon by showing them with air and tie it so it will stay strong and dump some paper inside the glue then place them over balloon & make sure the paper are placed all over the balloon they can put the balloon on the sun so they can dry . Use the background music with known composer during art work

Objectives - Help the children to develop instruction following, eye contact, imitation and socialization

15) Bubble making and dance

Material needed

Bubble maker for each child

Instruction - The performer shows the child how to bubble and give them the bubble maker and he star dancing by following the bubble and ask the children to follow him.

Objective - Help the children to develop eye contact, instruction following imitation.

CHAPTER 4

Findings and Data Analysis

4.1 Introduction

In this chapter the researcher tried to explain the characteristics of the participant and their parents and secondly explore what data have been found? What is the interpretation of it? Do they support or refute a hypothesis?

Throughout the course of this study, the researcher acted as coordinator. He began by giving work shop to teachers, volunteer professionals and observers regarding the research. And he overviewed the research during the intervention he worked directly with the teachers and volunteers to teach and lead them in the activities that he planned for that day. At the end of the study, he interviewed the director of the center about the outcome of the intervention. He graduated from Addis Ababa University in 2014 with a Bachelor of Art in Theatre.

4.2 Characteristics of Participants

The following are an overview of what significant observations were made by the researcher. All names mentioned have been changed for the research participants' privacy.

Research Participant #1 was Abebe

Abebe was a male participant and a child with autism was 14 years old at the start of the study and the researcher sat down with Abebe to discuss some issue he had a problem of speech making never use a meaningful word to communicate. He doesn't look at you when you talked to him and once in a while follow your gaze when you looked at something, no eye contact. in break time he prefer to be left alone he does not perform simple facial expression like smile , glimpse , poorly follow simple instruction given like 'come here ' , 'sit dawn' , 'stand up ' he will continue to go on without letting the other person have a chance" and "has a hard time waiting for his turn to play." He loves to play with toys of carpenter tools because his father was a carpenter and he is very artistic.

The parents of Abebe they did not live together and he is the only son in the family he lives with his mother and her education status is 8th grade. Her source of income was from the divorced husband. The researcher felt that Abebe can learn more from creative art about socialization, imitation, and eye contact, turn taking and knowing self.

Research Participant #2 was Bitew

Bitew was a male child with autism aged 10 years old at the start of the research. He came off as very disinterested in me during my pre-interview. I soon learned that this was not so much an issue of lack of interest as it was the difficulty of making conversation. and made infrequent eye contact with me. His teachers gave me more insight to his daily behavior and areas where he tended to excel. He struggles in school with writing and reading but is very skilled in drawing and learning concepts visually, such as math. He also is good at memorizing, but will only do it if he likes what he's been told to memorize.

Bitew lived with his parents together and no sibling other than him in the family the monthly income of the family is 3000.00 birr. And their educational status of his father and mother was BA and 12 dropouts respectively.

The researcher felt that Abebe can learn more from creative art about socialization, imitation, and eye contact, turn taking and knowing self.

Research Participant #3 was Almaz

Almaz was a female child with Autism and 8 years old at the start of the study that the child prefers to be alone seems not to be interested in other people at all, refuse to talk about his feelings and interest. When on interaction with peers she shows some self-stimulating behaviors like flapping hand over and over. This is common for child-3 even when in the class room teachers seek response from him. She avoids physical contacts with friends has trouble understanding of feelings of other students. Respond less to her name, less eye contact, shows nodding heads on attempt to respond to teachers, if few word to respond. Sometimes demonstrate some signs like pulling or pushing others leading to get something she wants. She has difficulty understanding others feeling forming attachments and relationships. She has difficulty in joint attention behavior.

What is unique to Almaz is her enthusiastic interest in music than any other social plays accustomed in the school. She has exceptional ability to recall the sequences and words of songs heard earlier in that particular academic year. In addition she has relatively good sensory motor coordination skills and strength among children assessed positive for autistic behavior. However her rhythmic song was characterized by action than it was by sound.

Almaz lived with her mother and she had one female sibling the monthly income of the mother was 4000.00 birr. Her mother was a diploma Graduate

Research Participant #4 was Afowork

Afowerk was the youngest male child with autism among the participant 5 years old at the time of study. He sometimes responds when the teachers call his name. Sometimes he can follow some command. He doesn't do a meaningful and relevant speech. Less or no eye contact; he did not take turns in simple games. Fail to bring something on request from another room. he fails to follow social cues. For example when children cry he did not worry un happy , crying he has sometimes wet pant

Afowork lived with his parents together and had one male sibling the family the monthly income of the family was 12,000.00 birr. And their educational status of his father and mother was BA and MA respectively.

Research Participant #5 was kibebew

Kibebew was a male participant and a child with autism was 13 years old at the start of the study. He had a problem of speech making never use a meaningful word to communicate. He doesn't look at you when you talked to him and once in a while follow your gaze when you looked at something, less or no eye contact. In break time he prefers to be left alone he does not perform simple facial expression. poorly follow simple instruction given like 'come here ' , 'sit dawn' , 'stand up ' he will continue to go on without letting the other person have a chance" and "has a hard time waiting for his turn to play."

Kibebew lived with his parents together and he had one non autistic brother. The monthly income of the family was 15,000.00 birr. His parents were well educating both of them had MA. The researcher felt that he can improve some of the behavior from creative art.

Research Participant #6 was Azeb

Azeb was female child with autism among the participant 9 years old at the time of study. She sometimes responds when the teachers call her name. Sometimes she can follow some command. She doesn't do a meaningful and relevant speech. She is sound sensitive, sometimes shout or screams, she did not look where other are looking and insensitive to other feeling; she did not take turns in simple games. Fail to bring something on request from another room. She fails to follow social cues. For example when other children cries she did not concern about them.

Azeb lived with her mother no other sibling was in the family. The monthly income of the mother was 8,000.00 birr. Her mother was Master of art beholder.

No	Child Psudo name	age group	Marital Status of Parents		income/ M	No of siblings			Source of Income		Educational status	
			Both live together						Father	mother	Father	mother
			yes	No		M	F	T				
1	Abebe	14		√	1,500.00	–	–	–	√		12 grade	8 grade
2	**kibebew**	13	√		15,000.00	1		1	√	√	M.A	M.A
3	Afowork	5	√		12,000.00	1		1	√		B.A	B.A
4	Mercy	8		√	4,000.00		1	1		√		Diploma
5	Azeb	9		√	8,000.00					√	B.A	M.A
6	Bitew	10	√		3,000.00				√		B.A	12 grade

Table 4.1- Demographic information of participant's parent

This chapter describes the analysis of data followed by a discussion of the research findings. The findings relate to the research Hypothesis that guided the study. Data were analyzed to identify, describe and explore the relationship between creative arts and dependent

variables of eye contact, turn taking, imitation, socialization, knowing self and instruction following of Autistic children.

The purpose of this study was to investigate the effects of creative art therapy on the skills of eye contact, imitation, turn taking, instruction follow up , knowing self and engaging in social activity of children with autism.

Following an ABAB withdrawal design the intervention began with a baseline recording.

With this design the researcher demonstrates the degree of control over behavior in two ways—first by *introducing* the treatment condition, then by *removing* it. Again.

4.3 FINDING

4.3.1 Eye Contact

The first set of Analysis examined to see the correlation between creative art and child with autism behavior were eye contact Figure 4.1 shows the number of times of eye contact given within sixty-minutes of creative art therapy to the six children was displayed .the details of each participants eye contact graph is annexed in the last part. The y axis is used to represent the scores of the dependent variable, whereas the x axis represents a unit of session a day. Spreadsheet software used to present data on graphs.

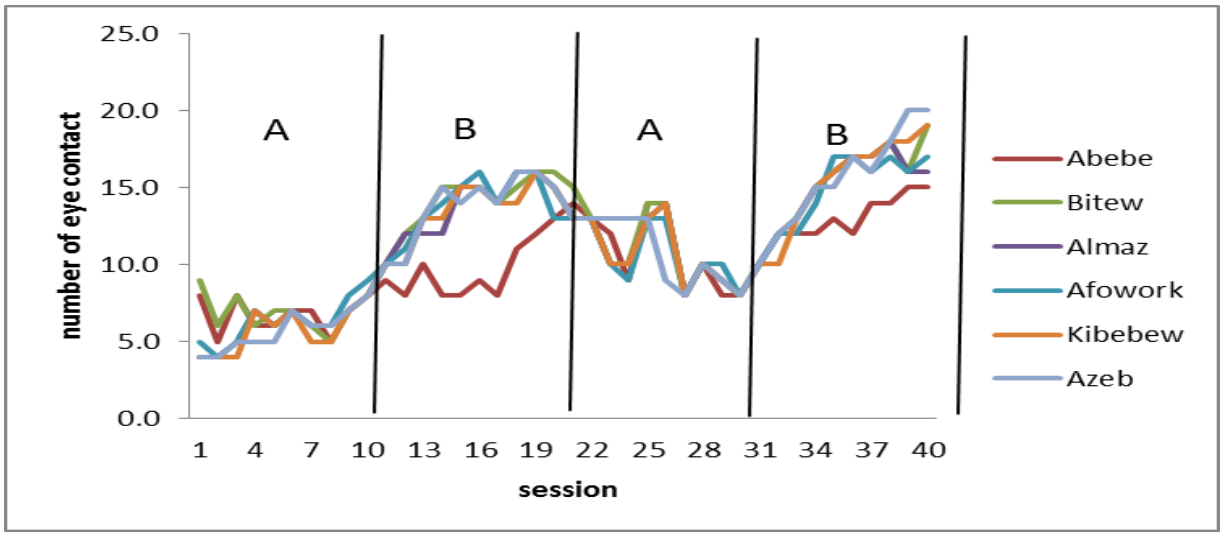

Figure 4.1 the frequency of children Abebe, Bitew, Almaz, Afowork, kibebew and Azeb. Eye contact during baseline, intervention and follow up phase in class room settings, plotted following A-B-A-B design.

Baseline Phase

The baseline phase (abbreviated by the letter A) represents the period in which the intervention to be evaluated is not offered to the subject. During the baseline phase, repeated measurements of the dependent variable in ten sessions were taken or reconstructed. These measures reflect the status of the children on the dependent variable prior to the implementation of the intervention. In a single-subject design, the subject serves as the control as the repeated baseline measurements establish the pattern of scores that we expect the intervention to change.

Without the intervention, researchers assume that the baseline pattern of scores would continue its course.

In the baseline phase, measurements are taken until a pattern emerges. A stable line, as displayed in figure 4.1, is a line that is relatively flat, with little variability in the scores so that the scores fall in a narrow band. This kind of line is desirable because changes can easily be detected, and it is likely that there are few problems of testing, instrumentation, statistical regression, and maturation in the data.

Treatment Phase

The treatment phase (signified by the letter B) represents the time period during which the intervention is implemented. During the treatment phase, repeated measurements of the same dependent variable using the same measures are obtained. Ultimately, the patterns and magnitude of the data points are compared to the data points in the baseline phase to determine whether a change has occurred. Tony Tripodi (1994) and David Barlow and Michel Hersen (1984) recommend that the length of the treatment phase be as long as the baseline phase.

However, there was a tremendous increase in eye contact during the first session of the intervention Phase B. This was due to the researcher's Activity to them and feedback whenever the children gave eye contact during art-play. The frequent and continuous question-asking and responding demonstrated by the researcher prompted the child to increase the frequency of his looking at people much more than he normally would without these reminders, cues or verbal reinforcements. The art activities were also new and interesting to all who was eager to participate in the sessions.

The sudden increase in eye contact for the second session (intervention phase) dropped in the withdrawal phase but picked up again for the fourth sessions. On average, 14.1 times of eye contact per session in the second Phase B were observed as compared to an average of 6.2 times of eye contact session in baseline. This showed a marked improvement in all children's eye contact during the researcher's creative art interventions.

The charts reflect the rate of change rather than the amount of change and may more accurately reflect the effort involved in therapy.

It is apparent from the above graph there is a strong correlation between the two variables being studied (creative art and eye contact). And it appears that the actual amount of the target variable-eye contact-has increased.

4.3.2. Imitation

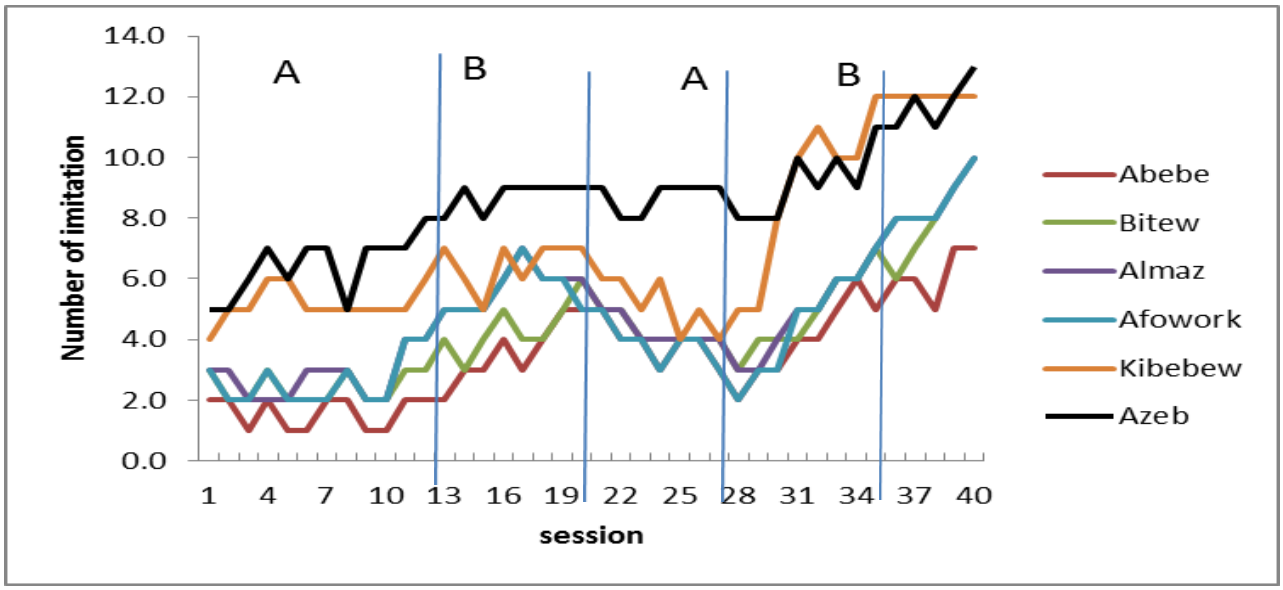

Figure 4.2 the frequency of children Abebe, Bitew, Almaz, Afowork, kibebew and Azeb. Imitation during baseline, intervention and follow up phase in class room settings, plotted following A-B-A-B design

The above graph indicates, all children participated in assessment is their imitation behavior during sixty minute session with out and with creative art intervention. During baseline, exhibit significant deficits in imitation that are associated with impairments in other social communication skills, found difficulties in the imitation of actions on objects, gestures, and oral-facial movements averaging 3.57 times during base line session. However, there was a

tremendous increase in imitation during the first session of the intervention Phase B. This was due to the researcher's Activity to them and feedback whenever the children gave imitation during art-play. The frequent and continuous question-asking and responding demonstrated by the researcher prompted the child to increase the frequency of his looking at people much more than he normally would without these reminders, cues or verbal reinforcements. The art activities were also new and interesting to all who was eager to participate in the sessions.

The sudden increase in imitation for the second session (intervention phase) dropped in the withdrawal phase but picked up again for the fourth sessions. On average, 8.1 times of imitation in the second Phase B were observed as compared to an average of 3.57times of imitation in baseline session. a group interaction with their peer and adult teachers the child showed more approach behavior including frequent smiling, sound effects, imitative referential looking, gaze following in the progress of the intervention for example in the mirror game they would look in the mirror, and would experiment with it (i.e , doing things to see those things reflecting back to them) and they can imitate what their teacher doing at their back.

The above graph indicates and tries to prove the use of creative art on autistic child can increase their imitation ability for social interaction.

4.3.3 Turn Taking

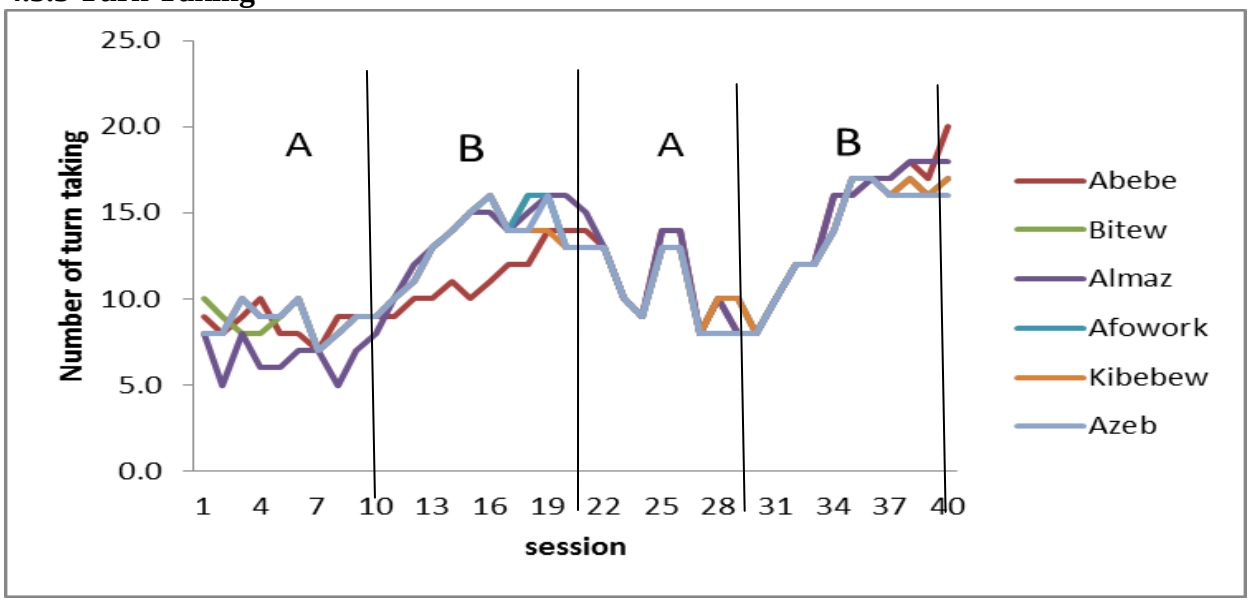

Figure 4.3 the frequency of children Abebe, Bitew, Almaz, Afowork, kibebew and Azeb. Recognize self during baseline, intervention and follow up phase in class room settings, plotted following A-B-A-B design.

The above graph shows the intervention has an effect depends on what a goal was established with all participant.

The actual amount of target variable –turn taking –has increased. A descending trend in the baseline phase and ascending level in the intervention phase. The descending level of turn taking in the base line has dropped and the level of turn taking has elevated for all participant.

Abebe, Almaz & Azeb respond at level of 55%, 43% and 59% respectively in the first base line phase after the activity was made a correct responding increased an average of 72.3% during the first intervention.

Bitew's pattern of responding was similar to Afowork and Kibebew with 59% rates at base line followed by 93% level of turn taking reached after 20 sessions and finally reached 100% level at end of 40 sessions.

It is apparent from the above graph there is a strong correlation between the two variables being studied (creative art and eye contact). And it appears that the actual amount of the target variable—turn taking—has increased.

On average the mean value of all participants at baseline phase was 8.35 and 13.31 at the first intervention but dropped to level of 10.68 during the withdrawal phase. Then finally increase the level of 14.98 in the second intervention phase.

One reasonable explanation of these results could be that the student stopped the art exercise and went their daily academic class.

4.3.4 Recognizing Self

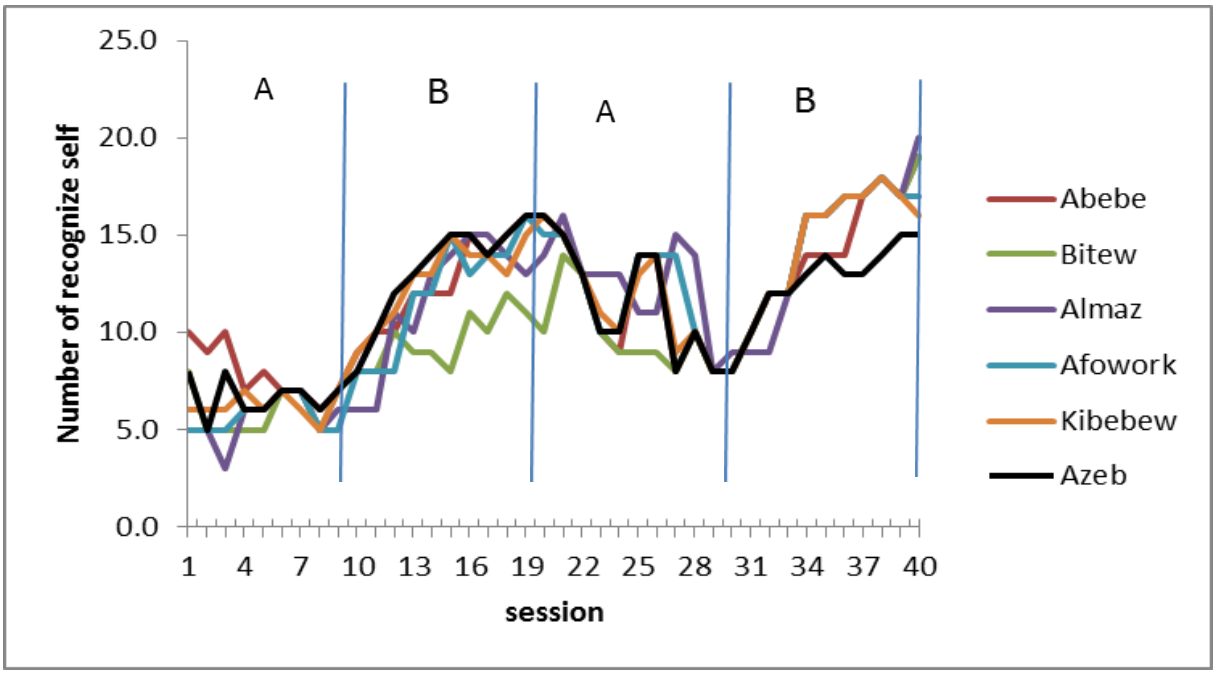

Figure 4.4 the frequency of children Abebe, Bitew, Almaz, Afowork, Kibebew and Azeb. Recognize self during baseline, intervention and follow up phase in class room settings, plotted following A-B-A-B design.

The fourth study In order to assess the correlation between creative arts and behavior in child with autism were recognizing self. When we examining the above graph, as displayed in figure 4.4 to identify patterns and evaluate change. In the baseline phase, measurements are taken until a pattern emerges with visual analysis the level was low and the trend showed zero for all participant and with little variability. In the first intervention phase B the level become high comparing the base line phase and the trend was elevated from 6.5 times frequency to 12.6 times frequency during the first 20 secessions on average.

In the withdrawal phase A the level was similar to the intervention phase but the trend dropped from 12.6 times to 11.11 on average The sudden increase in recognizing self for the second session (intervention phase) dropped in the withdrawal phase but picked up again for the fourth sessions. On average, 14.7 times of recognize self per session in the second Phase B were observed as compared to an average of 6.5 times of self-recognize session in baseline. This

showed a marked improvement in all children's self-recognition behavior during the researcher's creative art interventions

However, there was a tremendous increase in recognize self during the first session of the intervention Phase B. This was due to the researcher's Activity to them and feedback whenever the children see his picture he points to himself recognize mirror image /picture of self , identifies /defends own possessions or show preference for people or request toys /activities /food he wants during art-play. The frequent and continuous question-asking and responding demonstrated by the researcher prompted the child to increase the frequency of his recognize people much more than he normally would without these reminders, cues or verbal reinforcements. The art activities were also new and interesting to all who was eager to participate in the sessions.

From the above graph the Overall results were a strong correlation between the two variables being studied (creative art and eye contact). And it appears that the actual amount of the target variable—recognize self—has increased.

4.3.5. Following Instruction

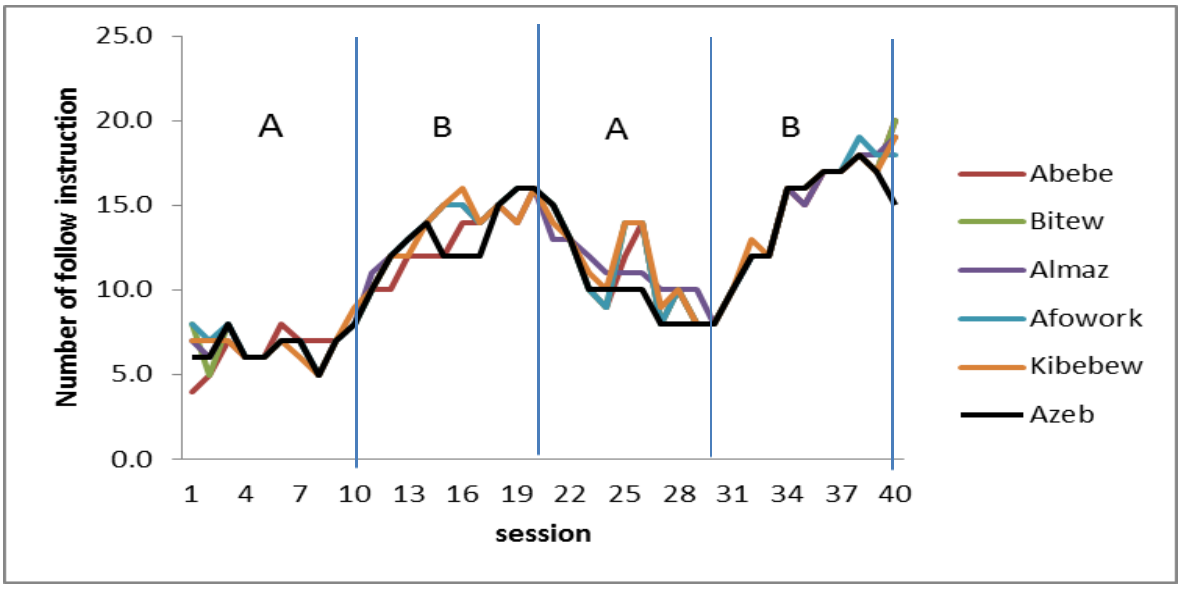

Figure 4.5 the frequency of children Abebe, Bitew, Almaz, Afowork, kibebew and Azeb. Follow instruction during baseline, intervention and follow up phase in class room settings, plotted following A-B-A-B design.

The fifth study In order to assess the correlation between creative arts and behavior in child with autism were follow instruction. When we examining the above graph, as displayed in figure 4.5 three were 40 sessions to identify patterns and evaluate change. The table above try to illustrate that in the baseline phase, intervention phase withdrawal phase and intervention again, measurements are taken until a pattern emerges in baseline phase and the level were low and the trend showed zero for all participant and with little variability. In the first intervention phase B the level become high comparing the base line phase and the trend was elevated from 6.6 times frequency to 13.6 times frequency during the first 20 secessions on average.

In the withdrawal phase A the level was similar to the intervention phase but the trend dropped from 13.6 times to 10.75 on average The sudden increase in follow instruction for the second session (intervention phase) dropped in the withdrawal phase but picked up again for the fourth sessions. On average, 15.3 times of follow instruction per session in the second Phase B were observed as compared to an average of 6.6 times of follow instruction session in baseline. This showed a marked improvement in all children's self-recognition behavior during the researcher's creative art interventions

However, there was a remarkable increase in follow instruction during the first session of the intervention Phase B. This was due to the researcher's Activity to them and feedback whenever the children follow simple instruction given or respond when his name is calling or could bring something on request from another room.

From the data in figure 4.5 it is apparent that there were a strong correlation between the two variables being studied (creative art and follow instruction). And it appears that the actual amount of the target variable—follow instruction—has increased.

4.2.6. Engaging in Social Interaction

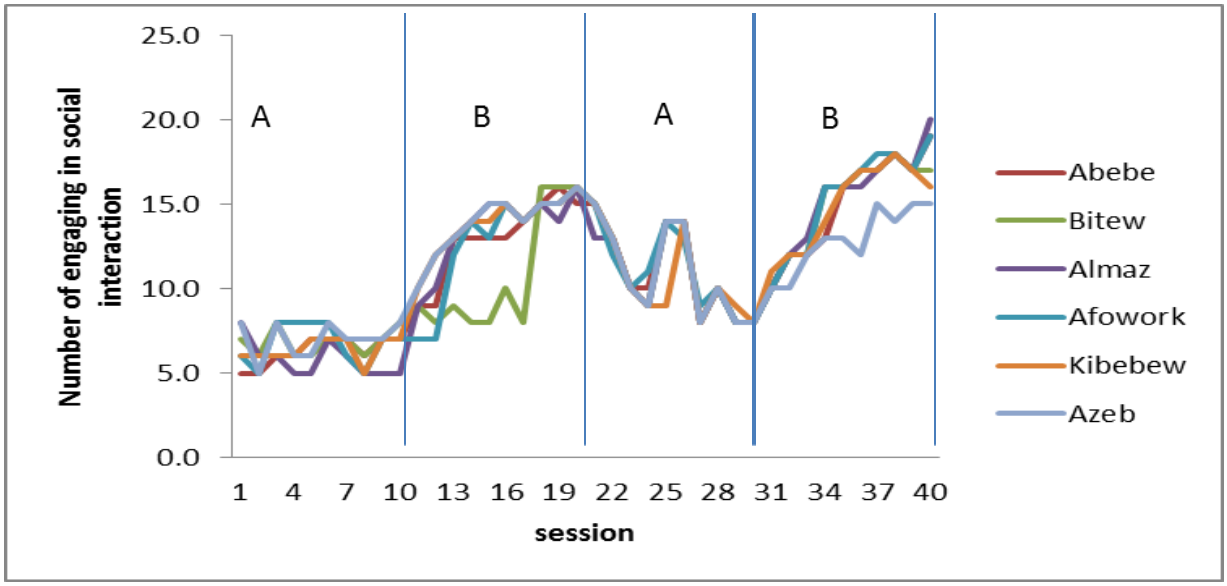

Figure 4.6 the frequency of children Abebe, Bitew, Almaz, Afowork, Kibebew and Azeb. Engaging in social interaction during baseline, intervention and follow up phase in class room settings, plotted following A-B-A-B design.

The six and final study In order to evaluate the correlation between creative arts and behavior in child with autism were engaging in social interaction. When we observing the above graph, as shown in figure 4.6 three were 40 sessions to identify patterns and evaluate change. The table above try to demonstrate and compares the experimental data on the dependent variable engaging in social interaction in the baseline phase, intervention phase withdrawal phase and second intervention and independent variables creative arts, observation are taken until a pattern emerges in baseline phase and the level were low and the trend showed zero for all participant and with little variability. In the first intervention phase B the level become high comparing the base line phase and the trend was elevated from 6.5 times frequency to 12.8 times frequency during the first 20 secessions on average.

In the withdrawal phase A the level was similar to the intervention phase but the trend dropped from 12.8 times to 10.76 on average The sudden increase in follow instruction for the second session (intervention phase) dropped in the withdrawal phase but picked up again for the fourth sessions. On average, 14.95 times of follow instruction per session in the second Phase B were observed as compared to an average of 6.5 times of — engaging in social interaction

session in baseline. This showed a marked improvement in all children's engaging in social interaction behavior during the researcher's creative art interventions

However, there was a remarkable increase in follow instruction during the first session of the intervention Phase B. This was due to the researcher's Activity to them and feedback whenever the children can shake head for 'no' and yes or waves and says bye-bye or does he say thank you.

From the data in figure 4.6 a comparison of the two variable results reveals that there was a solid correlation between the two variables being studied (creative art and engaging in social interaction). And it appears that the actual amount of the target variable- engaging in social interaction -has increased.

CHAPTER 5

Discussion

Even though This research is designed for MA thesis paper Autism has always fascinated the researcher, probably due to a combination of influences: his two cousin‘s son & daughter were diagnosed with autism; a close family friend works at a school for a child with autism, and studied Theatre & Health.

There is no doubt that the complicated, controversial subject of autism treatment has increased in public concern. Autism is the fastest growing developmental disorder in the world, and our understanding of this disorder (as well as all disorders on the autistic spectrum) is very limited. Our rudimentary knowledge of this subject has led to inaccurate treatment theories that contain little to no scientific evidence. Most “treatments” that deal with drugs and chemicals have been discarded by scientists time and time again. Case in point, people are desperate to jump to conclusions.

This thesis had the aim of exploring whether children with autism respond to others appropriately, and interact with other people by making friendships; eye contact; Turn taking, imitation, instruction following, knowing self and socialization through the therapeutic use of creative art and improve their communication and Social skills.

The aim of this chapter is to summarize the preceding chapter and address the major finding of the study followed by the major contribution, constraint and limitation of research and finally out lines recommendation for further research related to the study.

The first part of this thesis provide a general back ground to the Autism and creative art ,in addition to the aims and significance of this study, Statement of the Problem Significance of the research, and Research objective:

A review of literature Explores Understanding the autism spectrum disorder (ASDs) Etiology and Risk Factors Diagnostic Criteria for Autism Spectrum Disorder Assessment of Autism Prevalence and Burden of Disorder, Autism in Ethiopia, Treatment and Interventions Searching for effective therapies The Needed Connection between Art and Autism The different

modalities of creative/expressive art therapy Dance/Movement Therapy and Autism Music Therapy and Autism Drama Therapy and Autism Benefits of Art Therapy with Individuals with ASD

Due to the increasing prevalence rate of ASD, screening and assessment methods have also increased, which enables ASD detection at around 18 month Baron-Cohen et al. (1996) primarily administered the CHAT in Great Britain. Based on the CHAT, Robins, Fein, Barton and Green (2001) developed the Modified Checklist for Autism in Toddlers (M-CHAT) to administer and research in the United States.

The prevalence of ASD in the United States is 14.7 cases per 1,000 (or 1 in 68) children living in the communities surveyed, with rate estimates varying widely by region of the country, sex, and race/ethnicity.7 Considerably more males (1 in 42) than females (1 in 189) are affected.

The manifestation and severity of symptoms of ASD differs widely, and treatments pursued by families include a range of behavioral, psychosocial, educational, medical, and complementary approaches that vary by a child's age and developmental status. The goals of treatment for ASD are to improve core deficits in social communication and social interactions and minimize the impact of restricted behaviors, with an overarching goal to help children develop greater functional skills and independence.

Children on the autism spectrum are innately attracted to all of the arts. The energy it takes to focus on a work of art, regardless of the art form, eventually affect all areas of their lives, children who have little interest in their environment are stimulated through the art and come alive inwardly. their spiritual nature responds to the beauty of art in all forms and care must be taken that the music played during a therapy session be of fine Quality classical composition The great musical masters wrote music that has the power to affect every level of human being , and if we quite ourselves enough to listen, we feel it.

Performing arts therapies are a crucial resource to the ASD community. These unique modes of expression provide the key to unlock many minds from the isolation caused by their ASD diagnosis.

The different modalities of creative/expressive art therapy include: art, music, drama, dance/movement, poetry/writing, play, and other forms of creative expression. Performing Arts Therapies: Dance/movement, Music, and Drama

The nature of autism presents numerous challenges for educators. However, much of the time, a teacher's fear and stress in teaching students with autism stems from a lack of knowledge about the disability and the specific student.

The single-subject approach is a method designed to study the behavior of individual subjects. In chapter three the design used for the study was illustrated that is single- subject approach. I believes that when these design used properly , can provide valuable information about individual behavior and can elucidate causal relationship between independent and dependent variables and has got advantage include immediate feedback to the researcher regarding changes in behavior, a focus on individual behavior, and strong conclusions regarding the effect of one variable on another .more ever it has a limitation of heavy time demands and often relies on the establishment of stable and reversibility of behavior.

The findings suggest that creative art is a strong motivational factor for children with autism to socialization and communication by doing eye contact, imitation, turn taking, instruction following

Hypothesis 1: creative art intervention will have a positive - effect on eye contact of children with Autism there is a strong correlation between the two variables being studied (creative art and eye contact). And it appears that the actual amount of the target variable—eye contact—has increased.

Hypothesis 2: creative art intervention will have a positive - effect on imitation of children with Autism. Creative art on autistic child increase their imitation ability for social interaction.

Hypothesis 3: creative art intervention will have a positive - effect on turn taking of children with Autism. There is a strong correlation between the two variables being studied (creative art and turn taking). And it appears that the actual amount of the target variable— turn taking —has increased.

Hypothesis 4: creative art intervention will have a positive - effect on instruction following of children with Autism. There is a strong correlation between the two variables being studied (creative art and instruction following). And it appears that the actual amount of the target variable- instruction following -has increased.

Hypothesis 5: creative art intervention will have a positive - effect on recognizing self of children with Autism. A strong correlation between the two variables being studied (creative art and recognizing self). And it appears that the actual amount of the target variable-recognize self- has increased.

Hypothesis 6: creative art intervention will have a positive - effect on engaging in social interaction of children with Autism. There is a strong correlation between the two variables being studied (creative art and engaging in social interaction). And it appears that the actual amount of the target variable— engaging in social interaction —has increased.

I should stress that the sample of participants for this study was children with Autism only in Nehemiah children with autism center. Therefore the study cannot be generalized for all autistic children. Participants range from 5 to 14 years old. Therefore results cannot be applied to older autistic populations. Since this study is only evaluating six skill set, it does not include other skill sets that are impaired by autism.

Two of the original six research participants did not go through the 40 sessions of the program. Because of health reason so observations were not made about Abebe and Bitew, which hindered our ability to record their progress over the course of an entire 40 sessions.

CHAPTER 6

Recommendation and conclusion

Recommendations for Researchers and Policy Makers

Based on the data in this study and the conclusions drawn, the following topics for additional research are recommended:

Research in to the effectiveness of creative art to child with autism is still in initial stage

Additional research is needed on the actual measures of student benefit, not just perceptions that result from faculty participating in faculty development activities to gain a more accurate picture of the impact of professional development activities on student learning.

Policy Makers and Planners

The findings from this study should propel state-level policy makers and educators to develop some method of coaching Children with Autism needs art educational support required in the school. Therefore teachers and educational decision makers need to plan for this support required by autistic children. To do this the availability of trained personnel is necessary.

Therefore, city education office needs to insure the availability of trained manpower in special needs education to facilitate the education of children with Autism through art.

Parent and school management needs to work together for the attainment of the same goal, that is the improvement of the specific problem of the child both at home and in the school.

The integrated planned activities of the parent and the school for alleviation of the problem of the child with Autism must be coordinated and coincide for better improvement of the life of the child.

Schools and Woreda education offices should allocate budget for establishment and strengthen the resource room for education of children with autism to facilitate quality education of these children.

Diagnoses of autism spectrum disorder are increasing, especially in children. Significant positive results from this study could give credence to using art therapy for autistic children. Since there are only case studies on the effectiveness of art therapy, evidence based practices could elevate the authority of art therapy in society. Future research may benefit from measuring the effect on other skill sets, including participants from across the country, or using an older population. Art therapy has the capability to help autistic children go from non-verbal to verbal, so they can communicate with the outside world. Along with increasing verbal ability, art therapy can help autistic children understand the semantics of conversations and stories. Art is already seen as therapeutic, so using art therapy could change the face of autism spectrum disorder.

I believe, through art, people are able to express what their words cannot. Making art can be a deeply personal, therapeutic, and healing experience. Art can be a release of what people keep bound tight within them. Through art, we can achieve a sense of accomplishment and further deepen our understanding of ourselves with some personal reflection.

My volunteer team was made of undergraduate college students, so it was very much a learning process the first few weeks for everyone, including myself. None of us had ever conducted research before and two volunteers had little to no experience with children with disabilities. It took us quite a few rehearsals to get accustomed to each student and how to go about creating the best atmosphere for everyone simultaneously.

I believe a larger number of participants and volunteers in the future will be key in helping to perpetuate the effectiveness of our modeling techniques and tensions among specific cast members.

I believe all six of the students made positive advances in certain social and behavioral skills as is reflected by the results of the six research participants. I saw every children come into this program with a target behavior to work through and focus on throughout the process and, as a result, I saw every student struggle to grasp new concepts and stretch their physical and emotional boundaries. I think the research results we gathered prove that creative art therapy has

the potential to reach many more children with ASDs and to continue helping those who have been through the program.

Interestingly Abebe after the compilation of research and end of the semester can attend in other main stream school.

The next steps would be to work with similar demographics but on a more long-term basis. By having more time to devote to the program, it would be easier to see further development and to reach more domains. More evidence could be collected, which would help to further validate the findings from this study.

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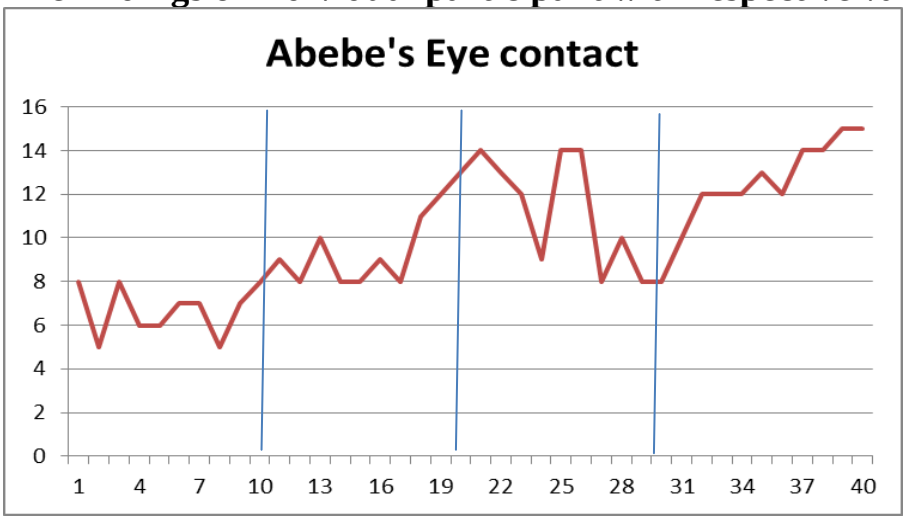
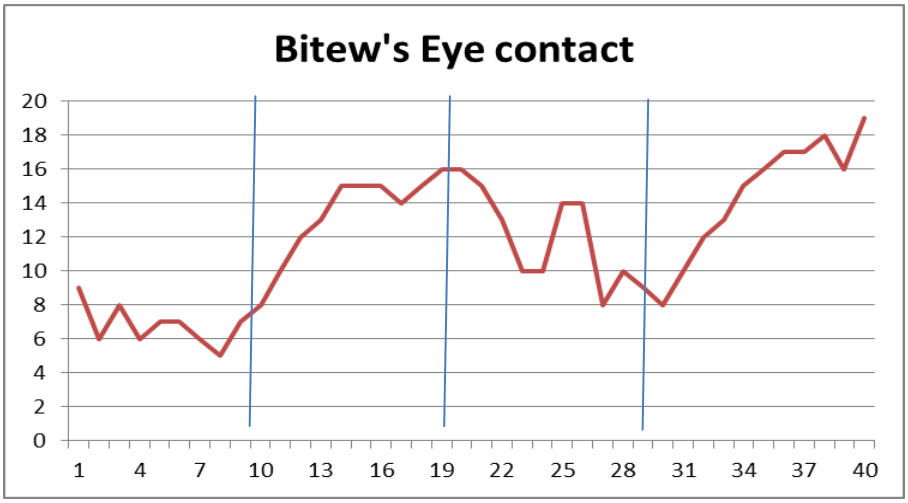
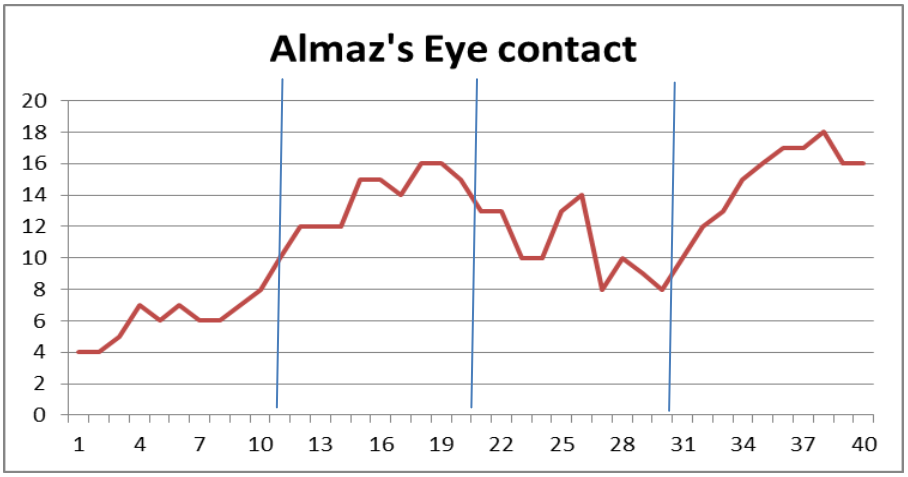
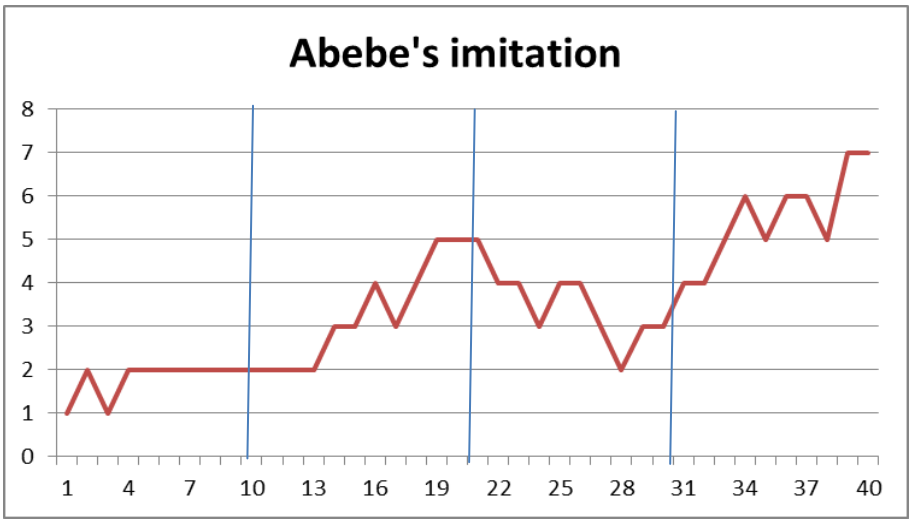
Appendix

The findings of individual participant with respective variables graphs





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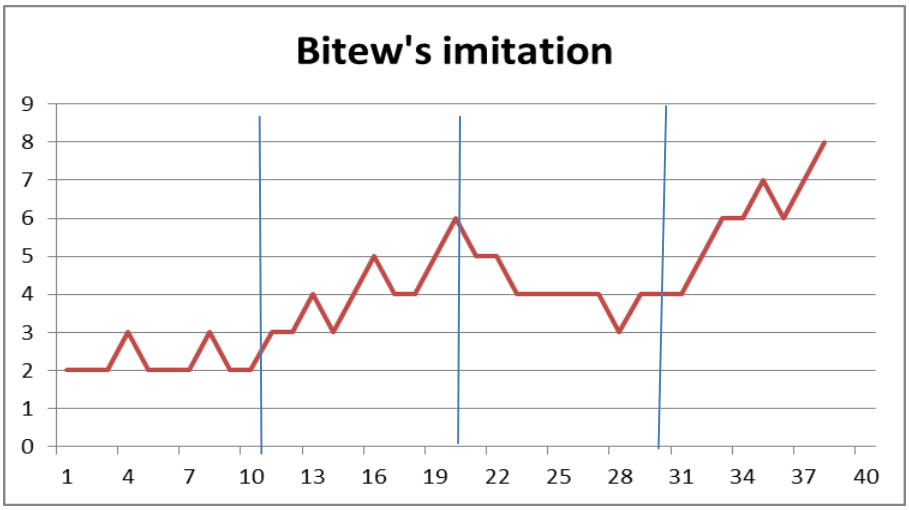
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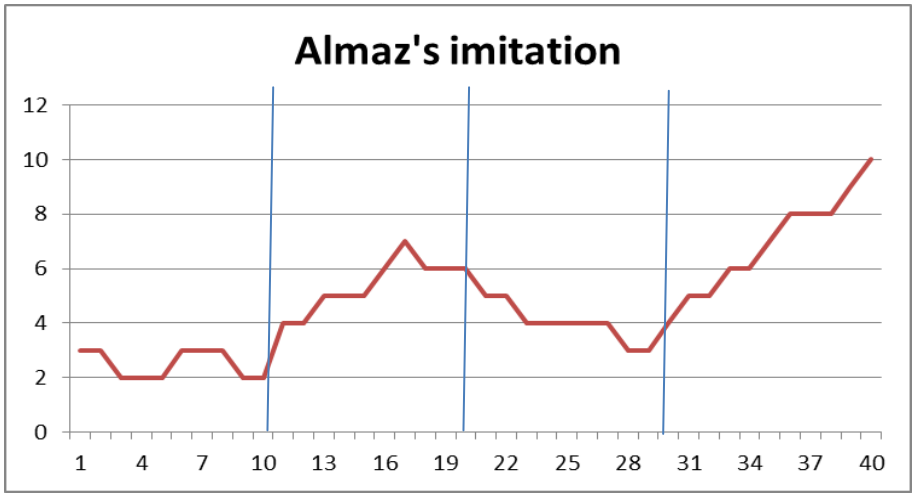
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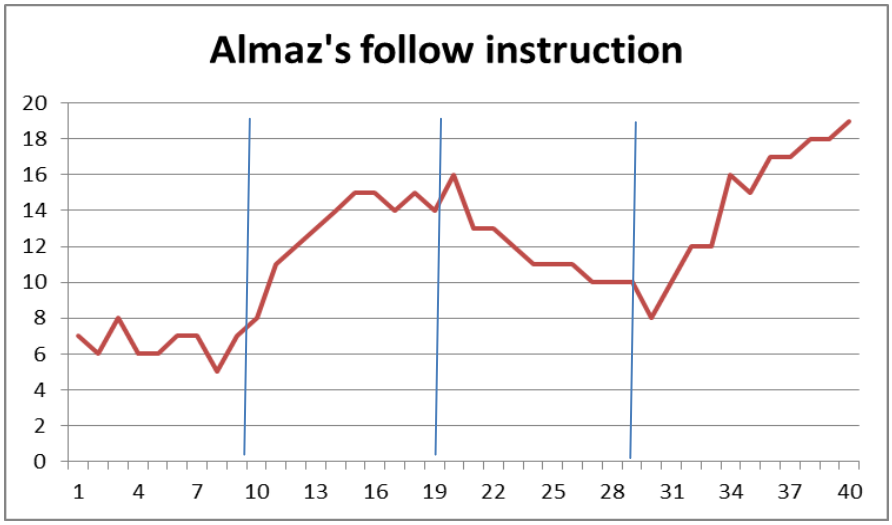
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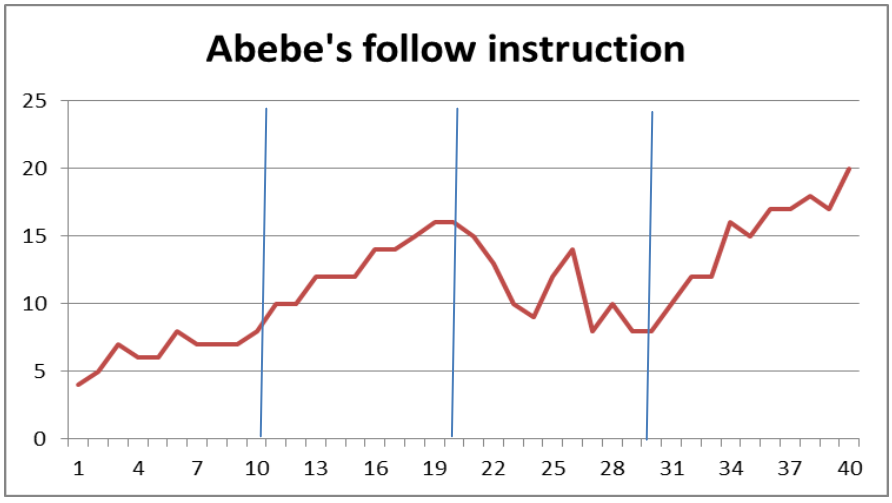
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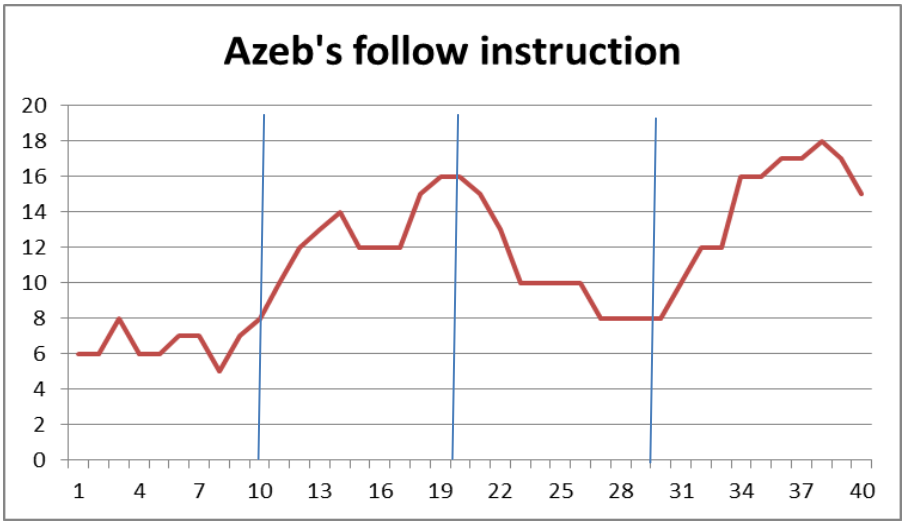
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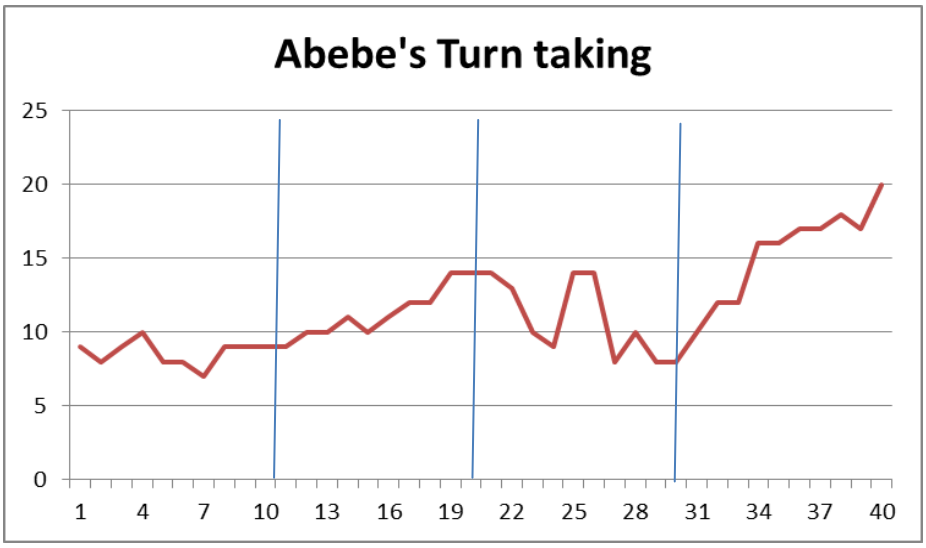
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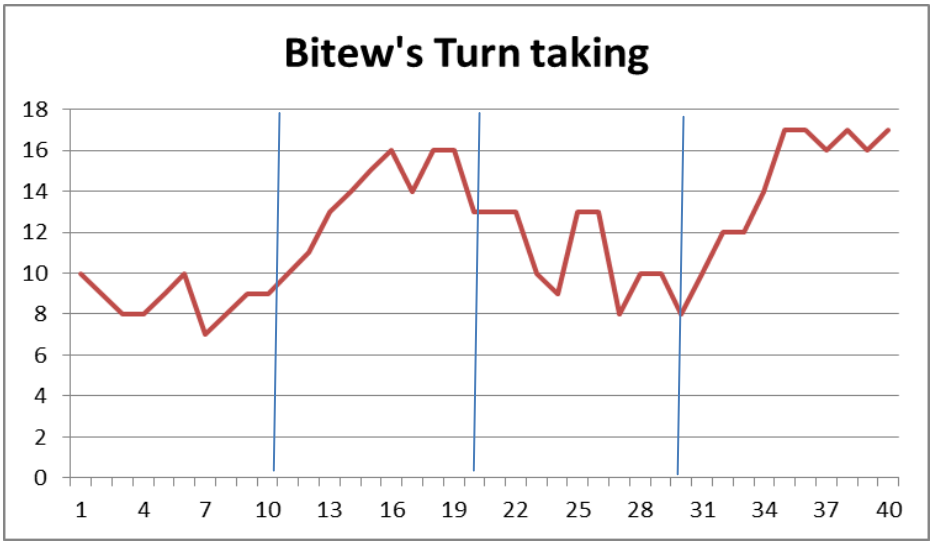
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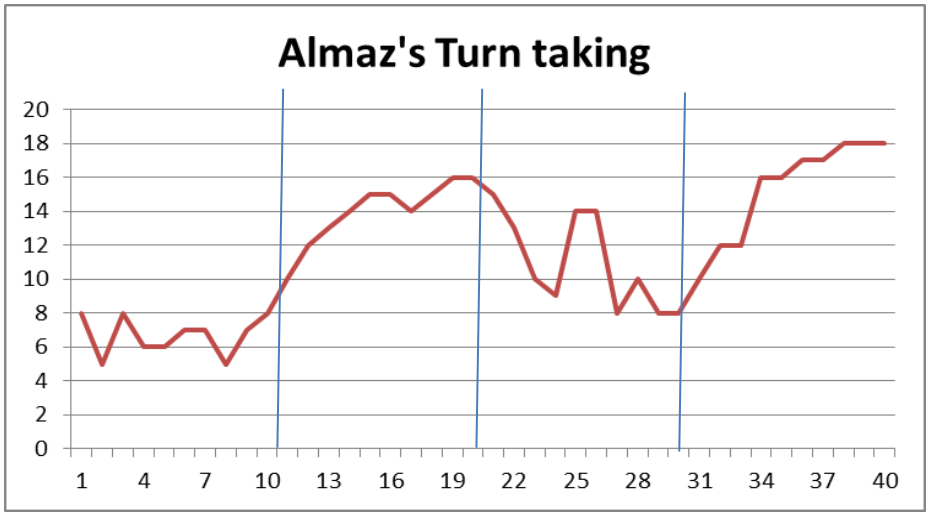
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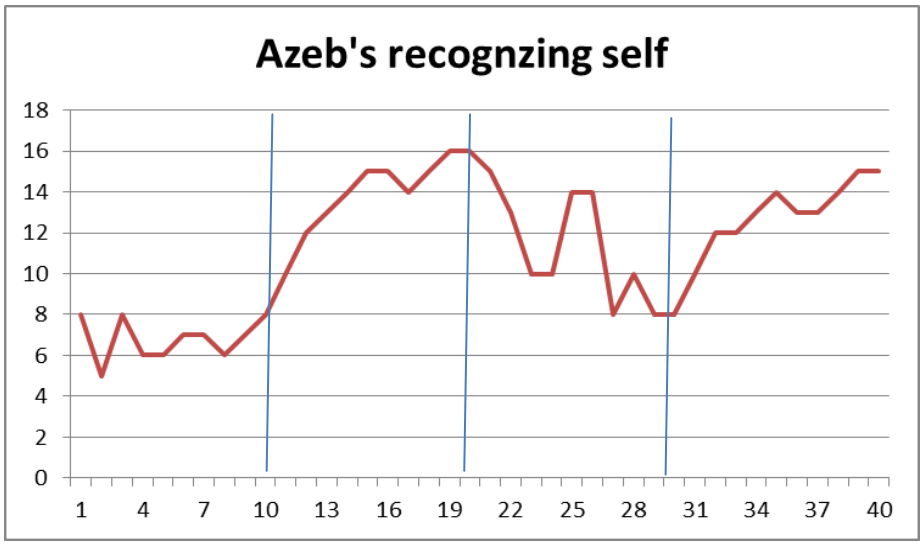
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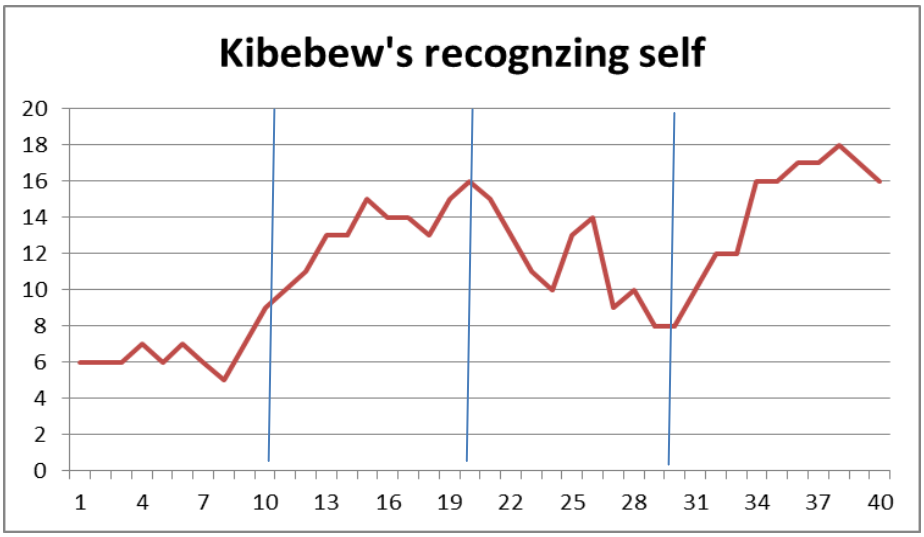
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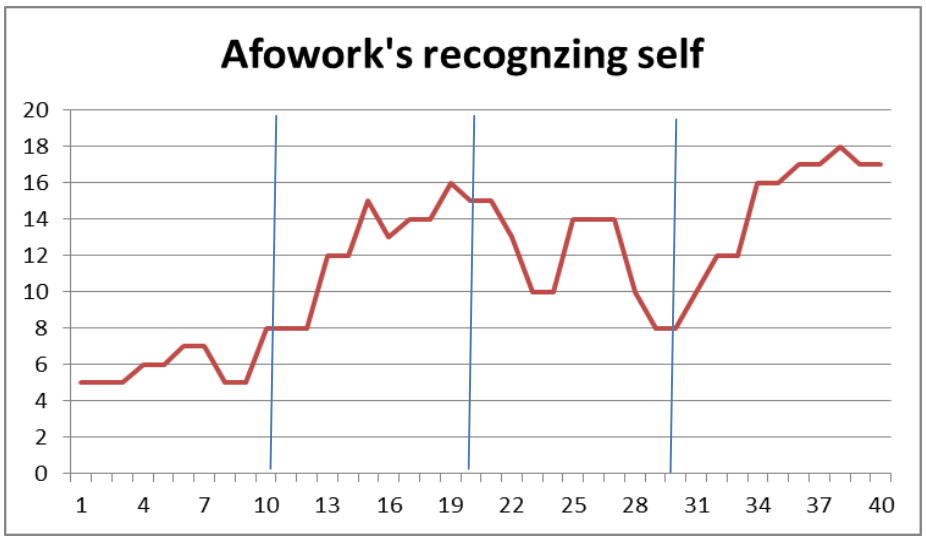
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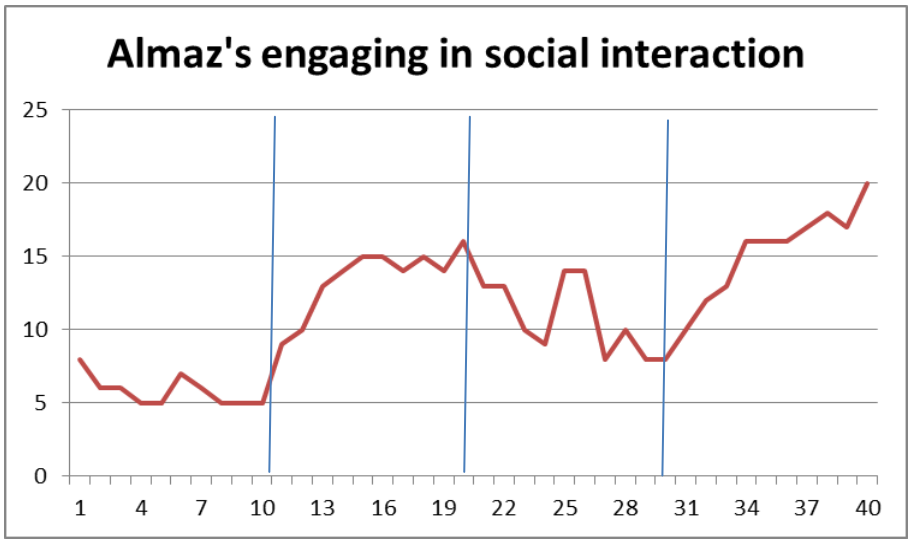
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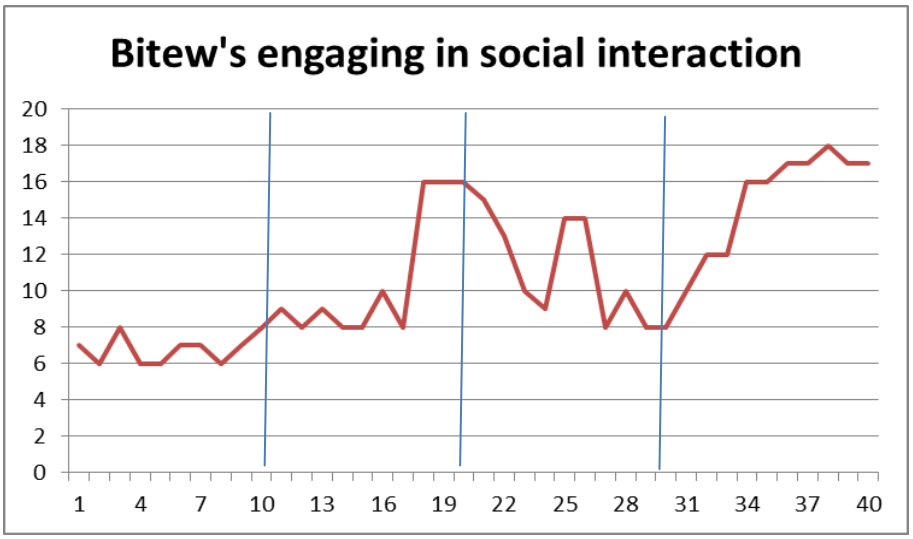
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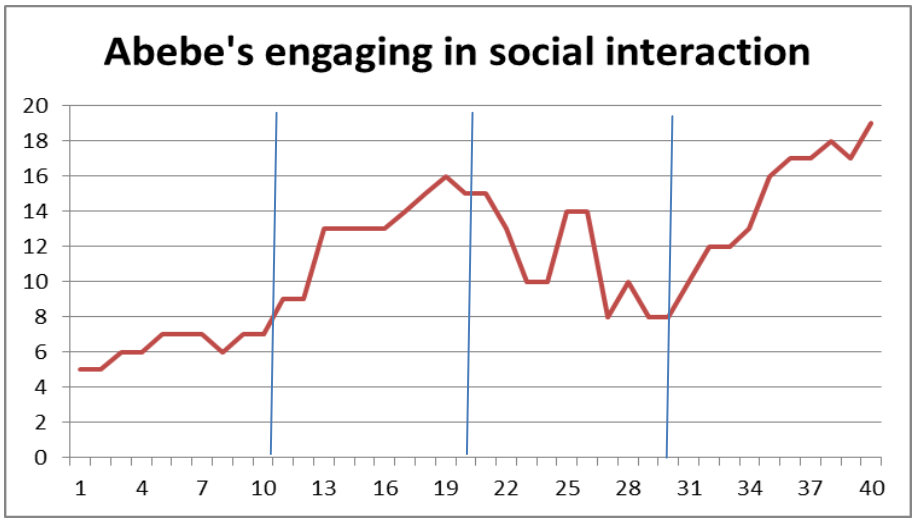
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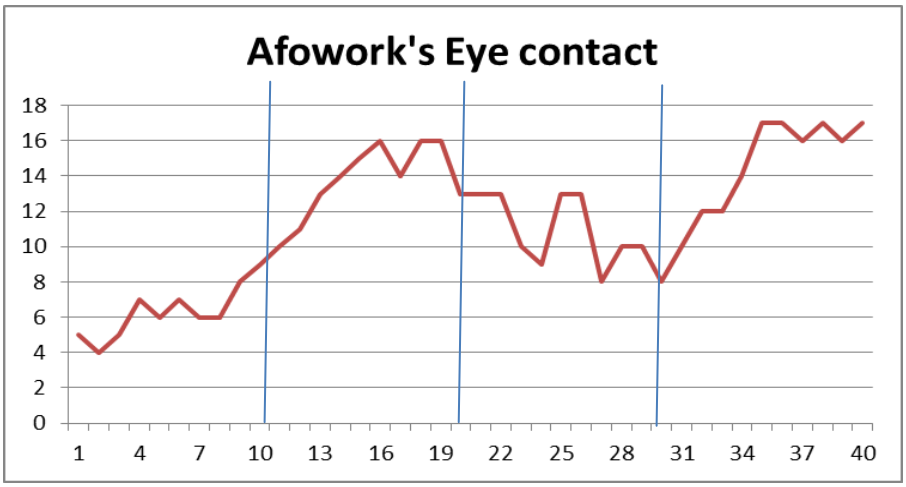
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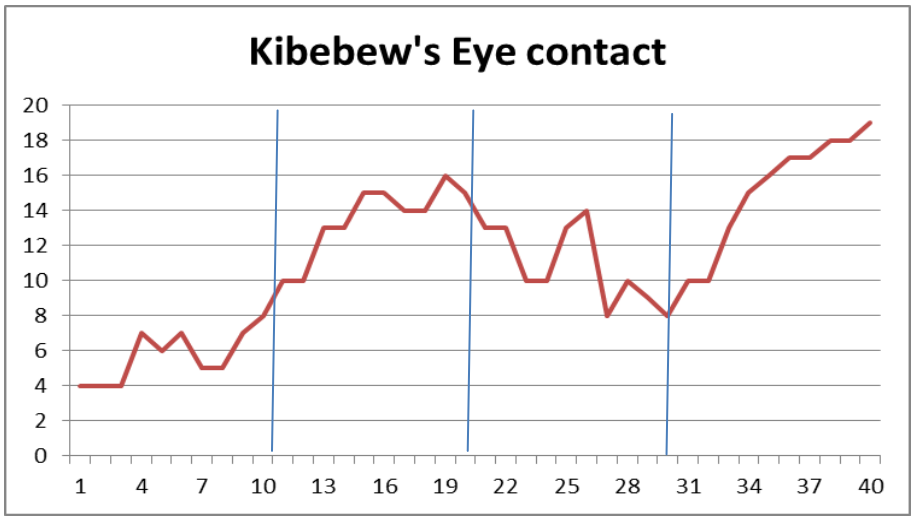
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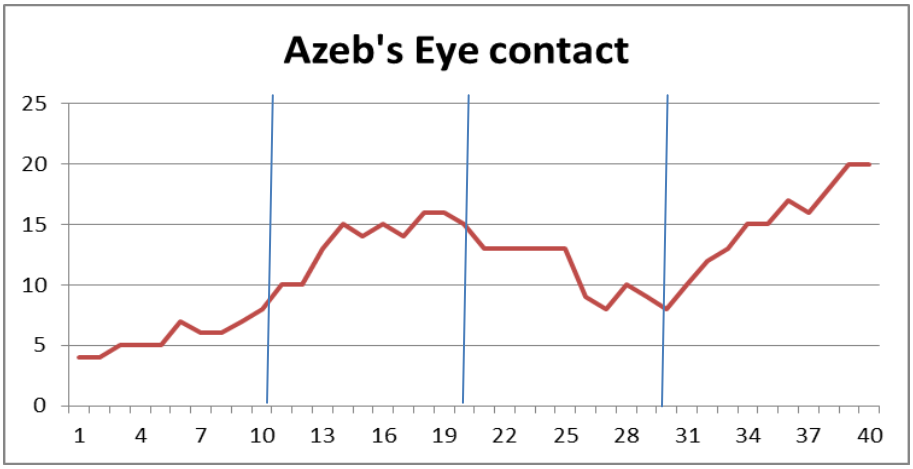
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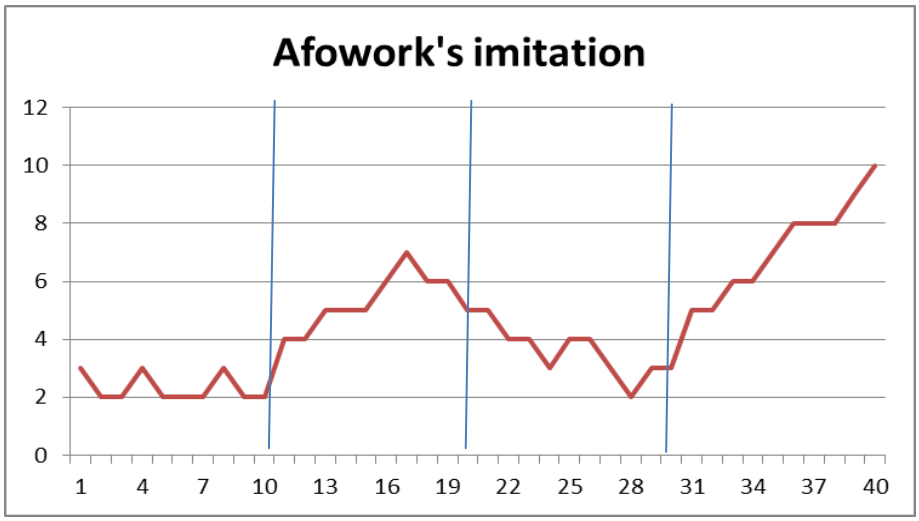
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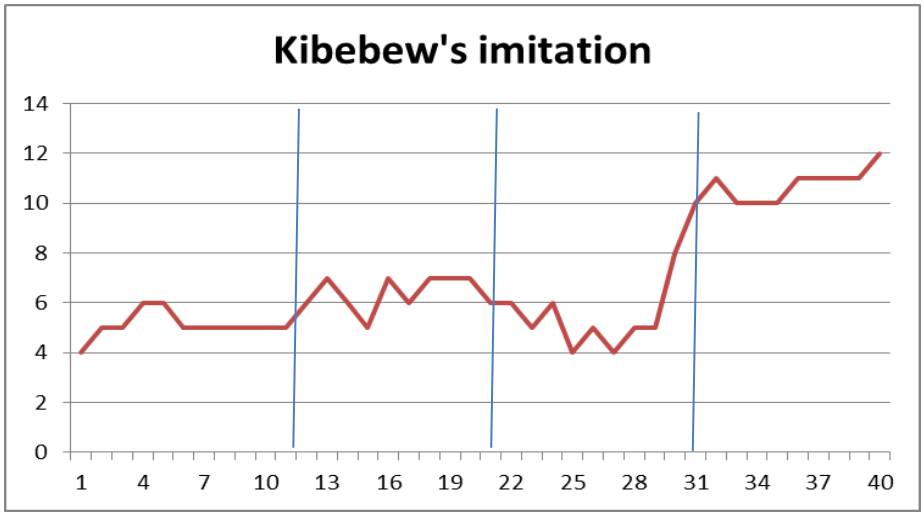
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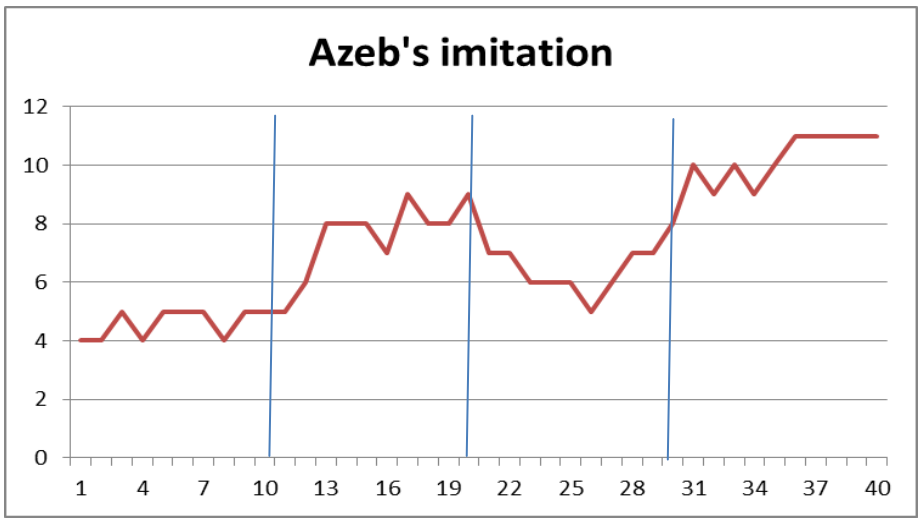
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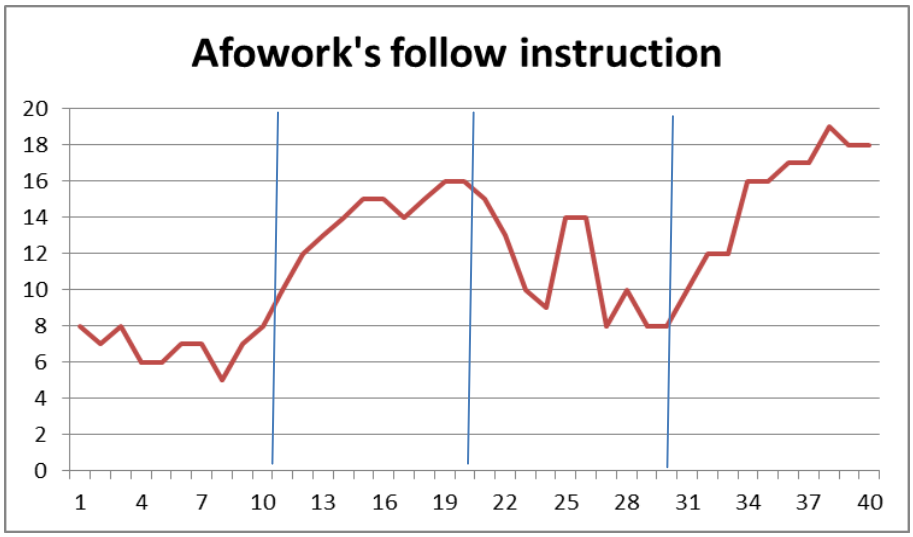
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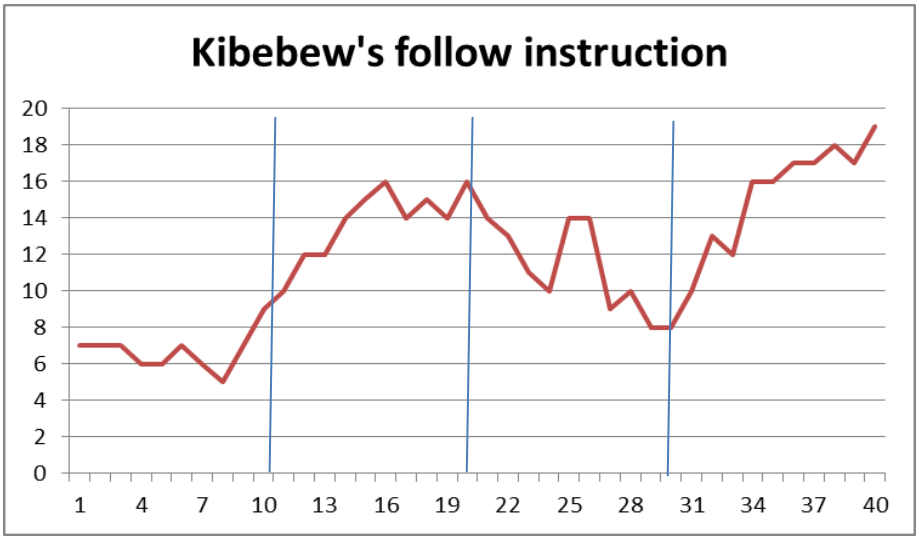
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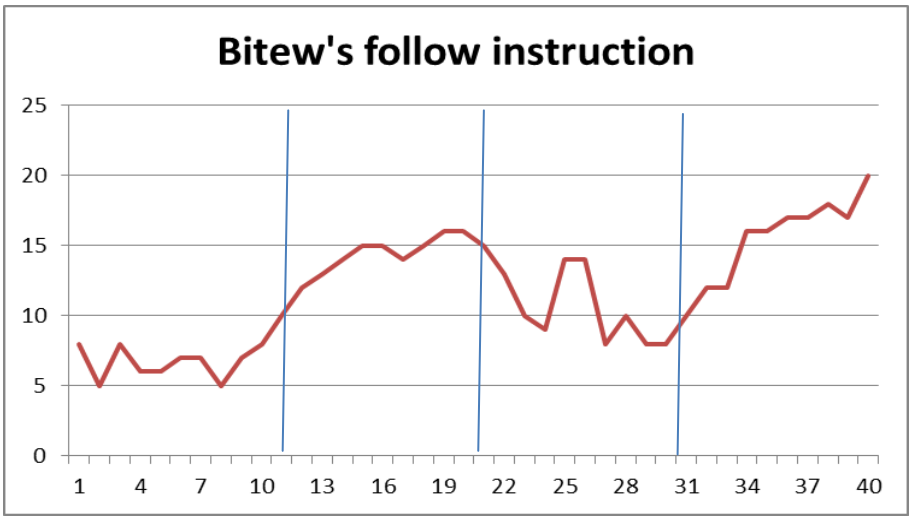
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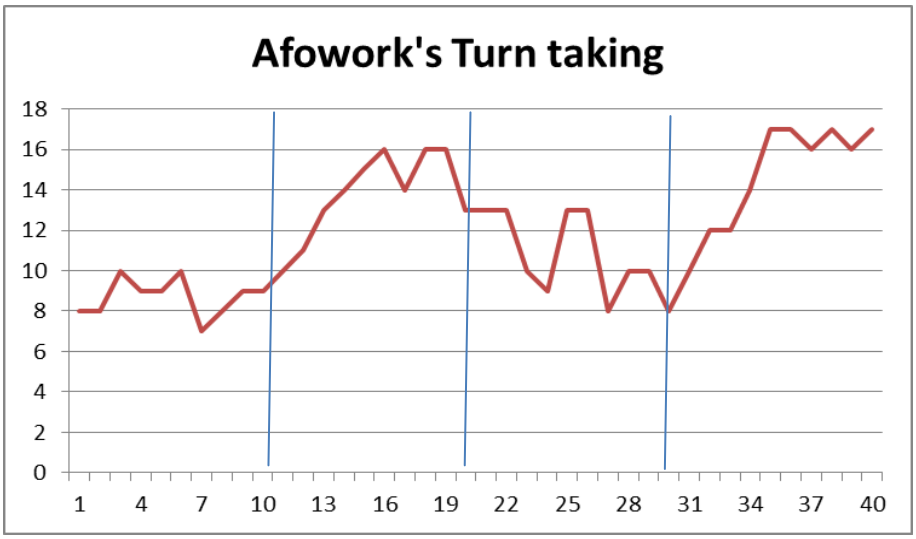
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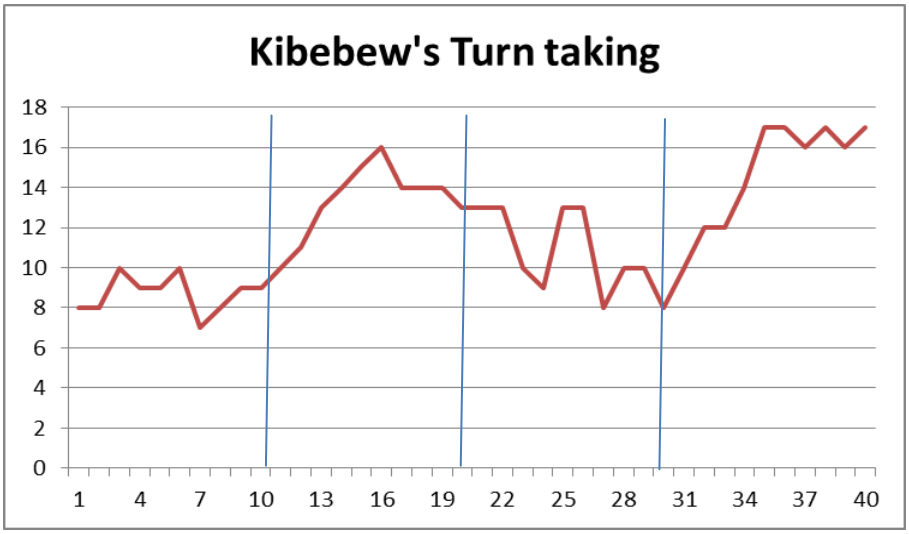
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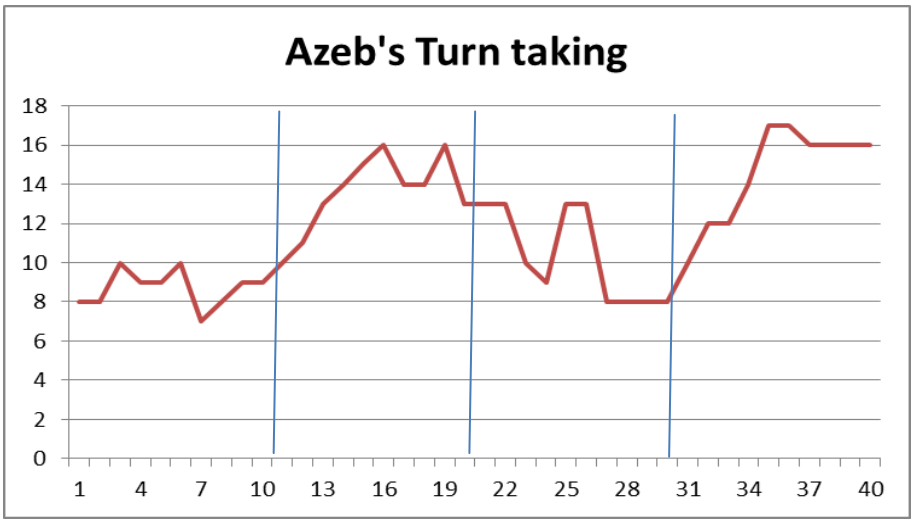
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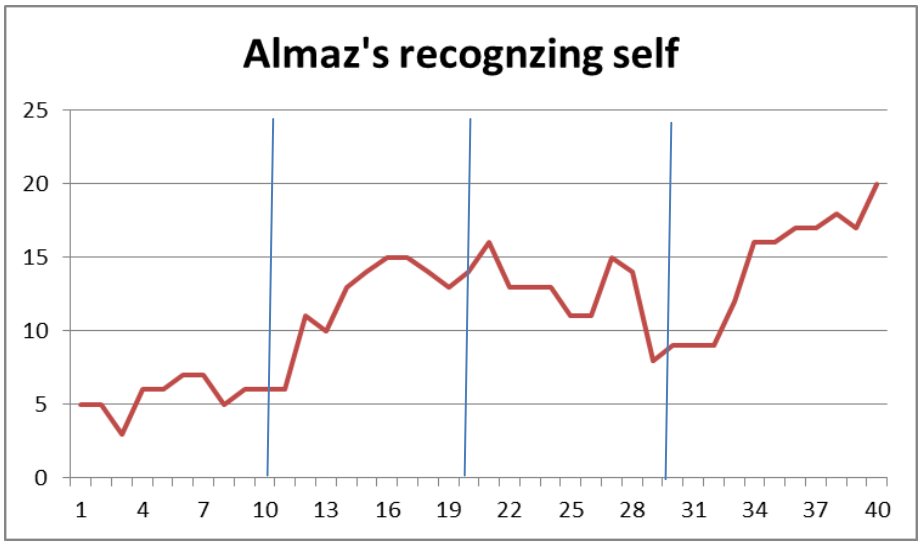
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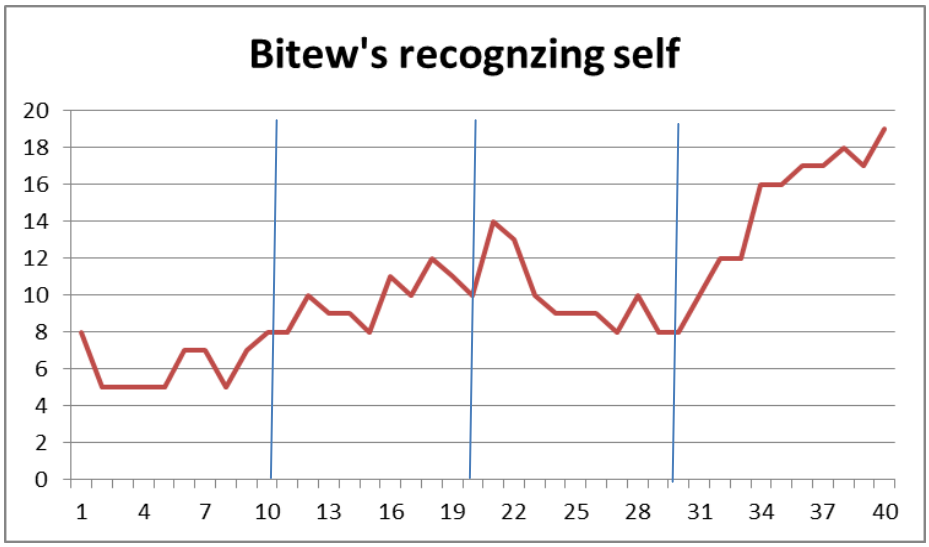
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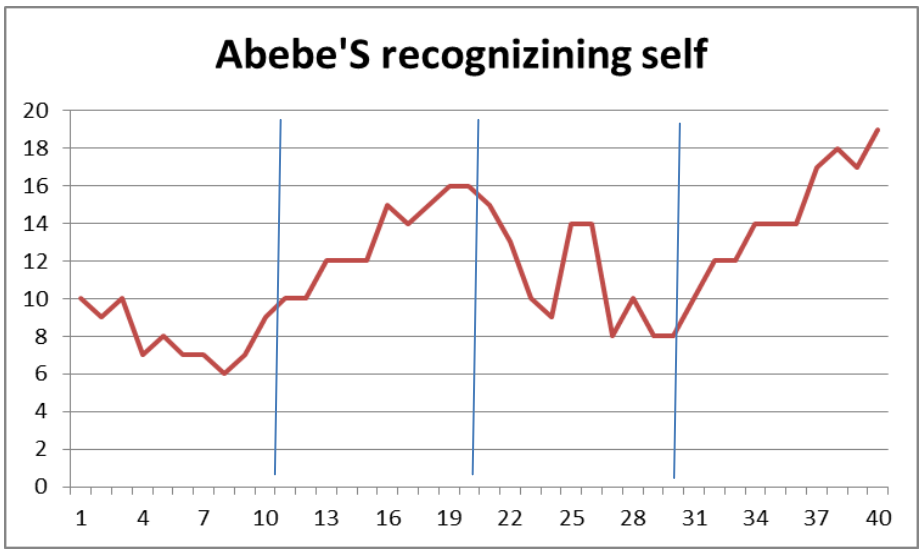
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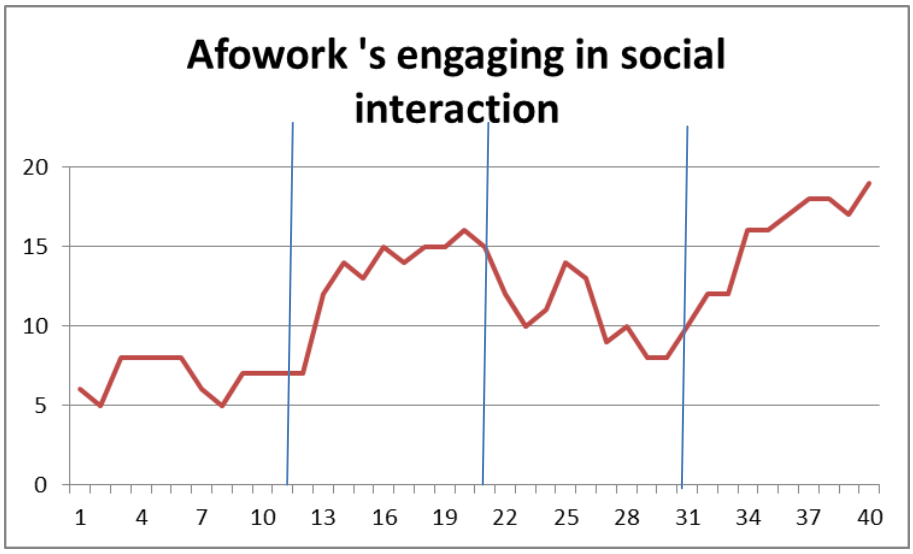
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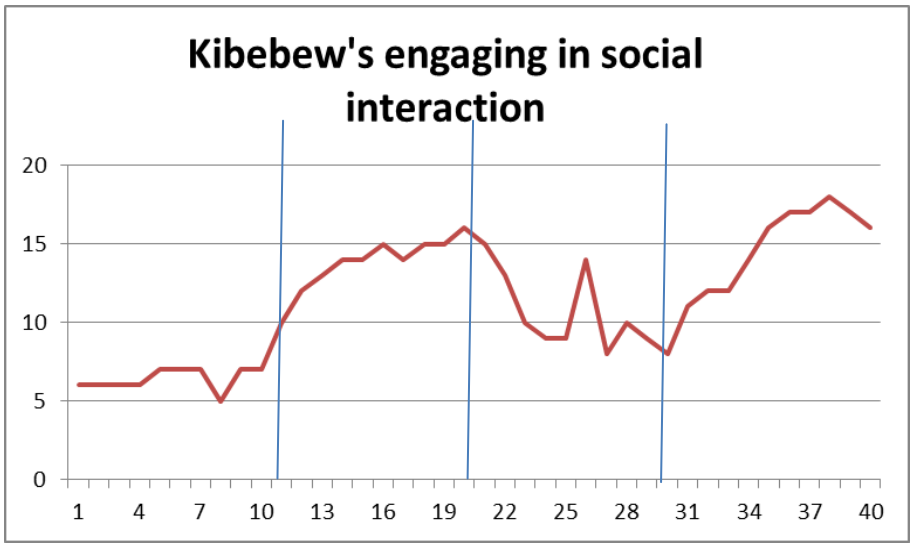
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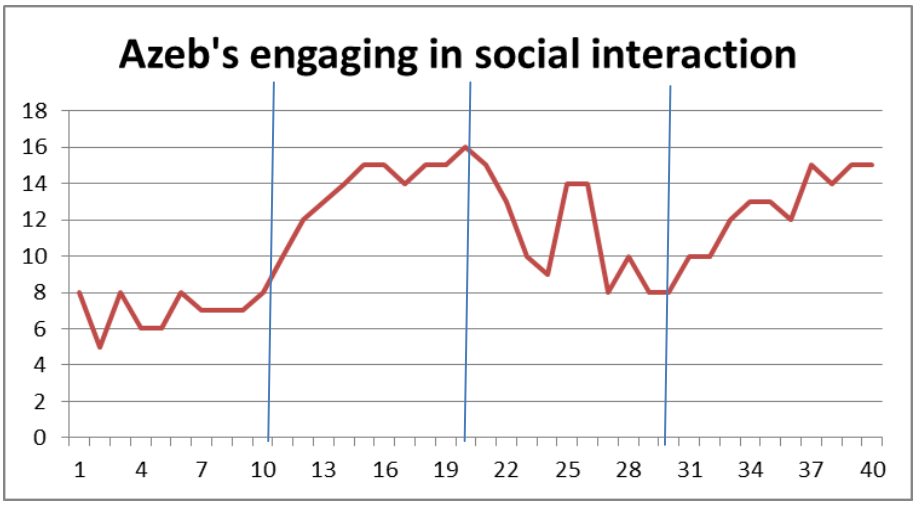
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የሰውን አይን ተከትሎ መሄድ						
ሌሎች ሲጫወቱ ማየት						
ትኩረት ማየት ሲሻ የሰውን ፊት ማየት						
የሰውን ፊት ገጽታ በማየት መልስ መስጠት እጅ ማውለብለብ ፡ማጨብጨብ						
ውስብስብ የፊት እንቅስቃሴ በማየት ምላሽ መስጠት ምላስ ማውጣት፤ ራስ መነቅነቅ						
ቀለል ያለ የፊት እንቅስቃሴ ፈገግታ፤ መኮሳተር						
ፎቶ በማየት ፤ መስታወት በመመልከት ራስን መለየት						
የራሴ የሚለው ነገር						
የሚያውቀውን ሰው መለየት						
የሚፈልገውን መጠየቅ						
ቀለል ያለ ትእዛዝ መቀበል (ሂድ፤ ቁም፤ ተነስ)						
ሰስሙ ሲጠራ መልስ መስጠት						
ከሌላ ክፍል ሲላክ እቃ ማምጣት						
አዎ፤ አይ ለማለት ራስን መነቅነቅ						
አመሰግናለሁ ማለት						
ቻዎ ቻው ለማለት እጅን ማውለብለብ						
ቀለል ባለ ካስ ጨዋታዎች የራስን ተራ መጠበቅ						
ልዩ እንቅስቃሴ በሚጠይቅ ጨዋታዎች ላይ ተራ መጠበቅ						
በክብ ጨዋታዎች ላይ ተራ መጠበቅ						
በክብ ጨዋታዎች ላይ ተራ መጠበቅ						
በግላቸው በሚያደርጉት ጨዋታዎች ላይ ተራ መጠበቅ ለምሳሌ እንደ ብስክሌት ሲነዱ ዥዋዥዌ ሲጫወቱ የመሳሰሉት						