

## PLAY-BASED INTERVENTION TRAINING PROGRAM FOR DAYCARE WORKERS ATTENDING TO CHILDREN WITH AUTISM

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### ABSTRACT

This research studied the teaching improvement of daycare workers in imitation, joint attention and language activities using the play-based early intervention training program in Cabanatuan City, Nueva Ecija. Focus group discussions were developed to explore the attitude, beliefs and practices of daycare workers. Findings of the study revealed that daycare workers have existing knowledge and experience in teaching children with Autism. Their workshops on managing inappropriate behaviors of children with Autism resulting in a general positive perception on accepting and teaching children with Autism in daycare centers. Play-based activities were modelled and participated in by daycare workers. These include demonstration, modelling, prompting and providing social reinforcers as reward. Five lectures and five training days were done to implement the training program. Daycare workers' levels of skill in teaching imitation, joint attention and language were gathered before and after the participation in the training program. Findings suggest significant differences between pre-test and post-test scores. They have shown significant improvement in facilitating imitation, joint attention and language children with Autism after the play-based early intervention training. They were able to initiate and sustain imitation, joint attention and language activities with adequate knowledge and confidence. The following conclusions were drawn, existing attitude and beliefs greatly influenced the positive delivery mode of instruction, teacher-directed approach to improved attention, imitation, joint attention and language of children with Autism can be acquired by daycare workers and teaching skills and experience can be used as reference and basis for identifying future training needs.

**Keywords:** Early Intervention, Play, Day Care Workers, Autism

### 1. Introduction

Daycare workers of children with autism are currently facing challenges in meeting the initial intervention needs whether learning, behavioral or social inside their classroom. Programs for children with autism inside the classroom have limited exposure to strategies for modification and accommodation (Volkmar et al., 2011).

Children have varied abilities and needs with individual pacing of development, often exhibiting a broad range of skills. Children with special needs is also present that should always be given attention and be included in the early childhood programs (Squires & Bricker, 2007).

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Knowledge in modifying daycare activities accommodate the center needs of children with autism is necessary (Flynn, 2011). Furthermore, as the qualification for daycare workers in the Philippines requires that they possess a high school diploma at minimum, they oftentimes cannot perform teaching and instructional tasks. This justifies the need to equip them with continuous training and enhance their delivery of instructions. Child-care workers who have been exposed to training, seminars, and workshops were more responsive to the classroom needs of children. It was reported that children in their class exhibited an above average academic level (Burchinal et al., 2002).

Play activities to increase socialization is important in the early education curriculum. Children with autism have limited play engagement. Given this, daycare workers must make effective intervention techniques in using play and to make it happen inside the classroom (Volkmar et al, 2011).

Since the daycare workers lack necessary skills in teaching children with autism due to inadequate training, ready-made activities must be handed over to them. Intensive training on how to implement these activities must also come with the package. Further, daycare workers handling children with autism should learn lessons to teach on imitation, joint attention and language (Flynn, 2011).

This research attempts to strengthen their ability to facilitate imitation, joint attention and language to their pupils with autism so that they can help them address such needs. In the initial informal observations, the researcher observed that these skills mentioned were lacking.

Preparing daycare workers of children with autism is an important aspect in inclusive education. Based on early intervention necessity and expected positive outcomes, daycare workers need to acquire new set of skills, practical experience and knowledge on program planning and implementation (Barnes & Smukler, 2009). Through play, children are introduced to build relationship, express themselves, and with surroundings full of trust and acceptance. Child-directed play offers these and enables them to apply the social skills that are prerequisite to higher social functioning in the home, school and community settings (Terpstra et al., 2002).

## **1.1. Statement of the Problem**

This research study explores daycare workers' attitude, beliefs and practices on children with autism and identifies the capacity and needs of daycare workers in relation to their practices in helping children with autism.

1. What existing attitudes, beliefs, and practices do daycare workers have in managing students with autism?
2. What is the level of skills in teaching imitation, joint attention and language among daycare workers?
  - a. Before intervention
  - b. After intervention
3. Is there a significant difference in the skills in teaching imitation, joint attention and language among daycare workers after intervention?
4. What are the components of play-based early intervention programs for children with autism that daycare workers find to be significant?

### **1.1.1 Significance of the Study**

This study aimed to teach daycare workers how to use play as an early intervention program in teaching children with autism. Since the prevalence of autism is rising and the need for early intervention is very crucial in identifying and addressing the developmental problems as early as possible, the need for these teachers to equip with teaching skills is necessary. The proposed Play-Based Early Intervention Program may augment their teaching skills to accommodate children with autism in the daycare. It may serve as one of the alternative early intervention programs that support daycare worker training, quality and cost-effective educational intervention for children with autism.

### **1.1.2 Scope and Delimitation**

The study focused on creating play-based early intervention training program for daycare workers of children with autism. The play-based early intervention training program focused on imitation, joint attention, receptive and expressive language teaching skills of daycare workers. These concerns are chosen because these were observed as lacking based in initial informal observations and interviews. These were the areas of concern that were expressed by the daycare teachers and were addressed by the study through the play-based early intervention training program.

The study was conducted among fifteen daycare centers in Nueva Ecija who had children with autism enrolled in their classes. There were ten daycare workers who participated in the study. Initially, all fifteen daycare workers in the study participated in the study but five of them dropped out because they no longer showed up during the succeeding interview sessions.

## **2. Review of related literature**

### **2.1. Autism**

Autism spectrum disorder was originally defined as a developmental disorder where socialization and communication are impaired associated with restricted, repetitive, and stereotyped patterns of behavior (American Psychiatric Association, 2000).

In the current Diagnostic Statistical Manual or DSM-V, autism is defined as a neurodevelopment disorder manifested with delays in social reciprocity and communication aligned with repetitive behaviors. It characterized itself in early childhood year from one to three. It hinders children's ability to acquire communication skills, socialize with peers and involve in different types of play (Robledo & Ham-Kucharski, 2005).

### **2.2. Play**

Play programs including activities and experiences are prevalent in children regardless of cultural background and it exposes the changing developmental aspects in children's understanding about their environment (Lifter, Mason, & Barton, 2011).

Play makes children fulfilled early childhood experience. The system and practice of play makes children control their environment, shows meaning, use their senses, and connect with

other people and collect information which they may use to learn things step by step. Their imagination expands, critical thinking skills improve, and sensory observation is enhanced (Einarsdottir & Wagner, 2006; Macintyre, 2010).

### **2.3. Daycare Worker Training**

According to O'Guin (2010), teachers including daycare workers who supervise a direct learning and play program can be trained to implement specific intervention including behavior-based interventions. These workers can achieve the desired level of mastery provided with adequate amount of time, demonstration, modeling, and hands-on. Given the expected rise of autism cases in young children and high dependency to implement early educational interventions in many possible settings, the demand placed on daycare centers is included on the top list. As a result, it is imperative to identify training needs to help daycare workers to effectively carry out an inclusive setting (Rispoli et al., 2011).

### **2.4. Play and Children with Autism**

Play promotes a typical and adaptive environment where a child can achieve conducive learning (Hanline 1999). Play characteristics, preferences and stages are also different from one child with autism to another. (Mastrangelo, 2009). Typical play of children with autism are noted with repetitions, simplicity and predictability of activities when observed over time as compared to the wide-range with various movements, spontaneity and multifaceted play of regular children (Lillard, Lerner, Hopkins, Dore, Smith, & Palmquist, 2013).

Children with autism may exhibit self-stimulatory behaviors over objects, toys, activities, place, person of interests and routines which they may do with repetitions because of rewarding sensory experience (Charman & Stone, 2006). Self-injurious behaviors are commonly observed during and when play is introduced such as putting fingers inside the mouth, poking eyes, head banging to fixations such as flickering lights, lining up objects and sorting the same colours or sizes and being routinary in schedule, route or pathway during travel or when inside the mall. Inappropriate behaviors may be manifested with their preoccupations to different environmental stimulus (Wolfberg & Schuler, 2006).

### **2.5. Imitation and Children with Autism**

Imitation is an action copied and produced in a verbal or non-verbal means. It can be meaningful or just plain response, functional or an expression between two people (Toth, Munson, Meltzoff, Dawson, 2005). It is important that foundational skill emerges and develops prior language and cognitive skills in early childhood. Typical development of children shows capacity to copy actions and movements at par with their developmental age while children with autism displays early signs of delay particularly in object imitation, fine and gross (Rogers, Hepburn, Stackhouse, & Wehner, 2003; Ingersoll, 2008).

### **2.6. Joint Attention and Children with Autism**

Joint attention is defined as the capacity of children to do what is asked or instructed. A child displays joint attention when he can establish and maintain eye contact on shared objects, and react, attend and perform necessary reactions in between interests (Blacher & Lauderdale, 2014). Deficiencies in joint attention and deficits in social-emotional reciprocity, ranging from irregular

social approach and failure of normal turn taking of conversation, to decreased social involvement including sharing of interests, emotions or affect, inability to initiate or respond to social interactions are under persistent deficits in social communication and social interaction across contexts, not accounted for by general developmental delays of DSM-V (American Psychiatric Association, 2013).

## 2.7. Language and Children with Autism

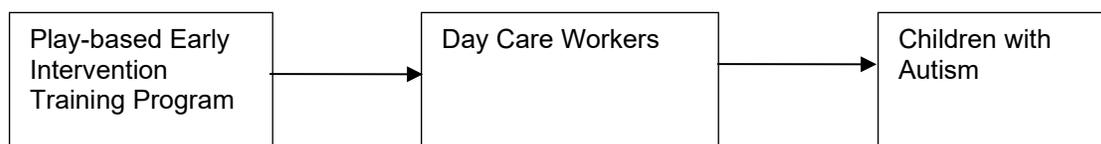
The irregular development and functional use of verbal and non-verbal means of communication is one of autism's remarkable characteristics. Children with autism may have problems in developing spoken speech and language (Rogers, 2008). Early language intervention greatly affects the communication and socialization of children with autism regardless of severity. However, better prognosis has been confirmed for those who display early language skills (Howlin et al., 2000). Children with autism reach for adult's hand to move and get things they wanted. Their communication is delayed and shows related behavior problems due to inability to express their feelings expressively or receptively. They tend to copy spoken words instead of answering and saying what is on their mind. While others cannot talk and display repetitive behavior, some children with autism display unusual memorization skills. (Kanner 1943, cited in Rogers, 2008).

## 2.8. Daycare Workers

Teachers of young children including are trained to create lesson plans suited for each child she teaches inside the daycare including those with special needs (Austin, 2013). Qualitative factors in education involves how family support and influence their child as well as teachers who directly influence their student in the classroom through various teaching pedagogies which can greatly affect cognitive and social development. It is important to generate effective teaching strategies that will focus on different learning styles and competence (McClelland & Morrison, 2003).

## 2.9. Conceptual Framework

Figure 1.  
Conceptual Framework



The figure shows conceptual framework of developing a Play-based Early Intervention Training Program for Daycare. The main objective is to create a play based early intervention training program that will be implemented by daycare workers for children diagnosed with autism that are currently enrolled in their centers

Children with autism are delayed developmentally. Through an early intervention, inappropriate behavior, self-stimulatory behaviors, noncompliance and other delays may be prevented or lessened.

Daycare workers may support the teachers, therapists and other professionals in providing early intervention, promotes awareness and education for all children with and without disabilities.

### **3. Methodology**

Focus group discussions, informal interviews, classroom observations and document reviews were done. Feedbacks and comments of daycare workers were rated using the play-based early intervention form which Imitation, Joint Attention and Language skills of Children with Autism were measured.

Daycare workers' interviews were done after informal training to learn about changes may occur in their knowledge, attitude and use of play-based early intervention program (Halpern, 1998). Numerous studies have suggested an informal and non-didactic approach to paraprofessional training. Paraprofessionals feel uncomfortable with formal, didactic approach, particularly one that is indicative of an institution or school type of environment and this inconvenience may result in lack of confidence regarding mastery of material. Training should include modelling and experiential hands-on application in addition to didactic components such as lectures and readings (Hiatt, Sampson, Baird, 1997; Tan, 1997, cited in Calzada, Caldwell, Brotman, Brown, & Wallace, 2005).

Direct observation during the training program were done to describe the implementation of the program and teaching performance. Training program observations on play were noted according to mutually exclusive categories: imitation, joint attention and language.

Four-day consecutive lectures and training, and five days observation and implementation of play-based early intervention program were conducted. The study was conducted in daycare centers in Nueva Ecija.

Quantitative measures utilized group pre-test-post-test design to compare the teaching skills of daycare workers of children with autism before and after exposure to the informal training of play-based early intervention program and evaluated its intervention effects on imitation, joint attention and language.

The research followed the model,  $O_1 - X - O_2$  Where: X represents the instructional program as treatment, while  $O_1$  represents the daycare participants pretested, and  $O_2$  represents the same participants at the posttest.

#### **3.1. Research Participants**

The participants in the study were daycare workers who have teaching experience with children with autism. Letters of permission and request were sent to the office of City Social Welfare and Development Office in Gapan, Cabanatuan, Palayan, Munoz, Talavera, and San Jose, Nueva Ecija, as well as letters of approval and information to the parents of pupils presently enrolled in the daycare including parents of children with autism.

#### **3.2. Research Locale**

Daycare centers in Cabanatuan City, Nueva Ecija was the research locale of this study. Centers where daycare workers have previous or presently teaching children diagnosed with Autism Spectrum Disorder. Fifteen daycare workers underwent needs assessment interviews. Only ten out of fifteen participants completed the lectures and play-based early intervention training. Since they were the teachers of children with autism inside the daycare

centers, they facilitated play-based early intervention program in a daycare center with four children with Autism Spectrum Disorder for one week.

The researcher visited the daycare centers of fifteen participants for one month to observe the baseline teaching skills of daycare workers and to construct play-based early intervention program. The researcher conducted four consecutive Saturdays for interviews and focus group discussions, five days of informal training on play-based early intervention, and lectures of daycare workers prior the five days of program implementation.

### **3.3. Research Instruments**

All the questionnaires were prepared by the researcher, based from the results of the needs assessment, focus group discussion and supported by related literature. The drafts were reviewed by thesis adviser and were asked to seek comments for improvement from panel of experts. The researcher sought the expertise of the validators to determine the appropriateness of the content, clarity, and presentation of questions. Validators of the instruments were a Sped teacher, DSWD regional administrator, and daycare worker president.

Daycare workers from other municipalities were contacted through text and calls to ask if they have teaching experience in teaching children with autism. However, the participants went to six municipalities to look for daycare worker participants. Letter of permission from the City Welfare and Development Office head was sought before going to centers. They were also asked if they are available and willing to be interviewed. Prior to the interview, the purpose and need to answer the questionnaire were explained.

The needs assessment questionnaire was pilot tested to daycare workers who taught children with autism in their centers to identify the appropriate and relevant questions to be made on attitude, beliefs, practices and to determine daycare centers activities related to the area of concentration such as imitation, joint attention, and language which greatly affect the performance of children with autism and also included in the core deficits of autism. Interviews lasted approximately forty minutes to one hour.

The research instruments were Needs Assessment Interview Questionnaire, Focus Group Discussion Questionnaire and Informal Checklists on Attitude, Beliefs, and Practices, and Play-based Early Intervention Program focusing on Joint Attention, Imitation and Language of Children with Autism. All materials were created by the researcher and written in Filipino. They were validated by the president of daycare workers' association in Cabanatuan City, the Regional DSWD head and a Special Education specialist.

Qualitative interview is based in conversation (Kvale, 2006), with the emphasis on researchers asking questions and listening, and respondents answering (Seidman, 2006). Interviewing participants are more likely to be viewed as meaning makers, not passive conduits for retrieving information from an existing information and answers based on experience and learning. The purpose of most qualitative interviewing is to derive interpretations, not facts or laws, from respondent talk. This method will allow the participants to freely express themselves, to clarify and elaborate their answers (Holstein & Gubrium, cited in Bourke, 2008).

### **3.4. Focus Group Discussion Guide**

The focus group discussion guide (Gabay sa Nakatutok na Pang-grupong Talakayan) was in an open-ended interview-questionnaire format. It has four parts: (1) Personal information about the daycare worker; (2) the daycare workers' years of service; (3) their teaching experiences; and (4) number of seminars about autism they have attended (5) Group discussion consist of eight questions on defining the characteristics of autism, their beliefs, attitude, practices in teaching children with autism, as well as the center-based needs of daycare workers to teach children with autism inside the daycare. The daycare workers' interviews were also written down verbatim.

Group discussions provide direct evidence about similarities and differences in the participants' opinions and experiences. This technique can produce concentrated amounts of data on precisely the topic of interests (Morgan, 1997). In this study, the purpose was to determine the needs to make the program and its evaluation based on daycare workers' attitude, beliefs and practices who are involve in play-based early intervention program for children with autism. The focus groups consisted of those teachers who participated in the early intervention program. The composition of the focus group was limited to daycare workers. Morgan (1997) states that to achieve consistency, both individual and focus group sessions were documented by the researcher. According to Gibbs (1997), one of the advantages of focus groups is the opportunity to be involved in decision making processes, to be valued as experts, and to be given the chance to work collaboratively with researchers can be empowering for many participants. If a group works well, trust develops and the group may explore solutions to a particular problem as a unit rather than as individuals (Goss & Leinbach, 1996; Kitzinger, 1995).

### **3.5. Daycare Worker's Attitude Questionnaire (Mga Tanong Ukol sa Pang-Unawa ng mga Manggagawa sa Daycare)**

This questionnaire consists of seven items written in Filipino to determine the the daycare workers' attitude on teaching children with autism in daycare centers. This was given to all the participants of the study and employed again to the ten daycare workers who participated in the informal training sessions, as post-test. Items 3, 4, and 6 dealt with their attitude regarding inclusion of children with autism in daycare centers. Items 1, 2, and 5 dealt with attitude in teaching children with autism, and item 7 with training attitude of daycare workers. Each item was rated using a Lickert-type scoring scale that ranged from *Di-lubos na sumasang-ayon* up to *Sumasang-ayon*.

### **3.6. Daycare Workers Beliefs Questionnaire (Mga Tanong Ukol sa Paniniwala ng mga Manggagawa sa Daycare)**

This questionnaire was used to assess the daycare tworkers' beliefs on teaching children with autism in daycare centers. It was written in Filipino, the scale consisted of nine items. This was given to all the participants of the study and employed again to the ten daycare workers who participated in the informal training sessions, as post-test. Items 1, 2, 7 and 9 dealt with their beliefs regarding inclusion of children with autism in daycare centers. Items 3, 4, and 5 dealt with beliefs in teaching children with autism, and items 6 and 8 deal with training beliefs of daycare workers. Each item was rated using a Lickert-type scoring scale that ranged from *Di lubos na sumasang-ayon* up to *Sumasang-ayon*.

### **3.7. Daycare Workers Practices (Mga Tanong Ukol sa Pagsasanay ng mga Manggagawa sa Daycare)**

This questionnaire was utilized to identify the practices implemented by daycare workers to when teaching children with autism in daycare centers. Items consists of eight items written also in Filipino. This was given to all the participants of the study and employed again to the ten daycare workers who participated in the informal training sessions, as post-test. Items 1, 4, and 5 dealt with their practices regarding inclusion of children with autism in daycare centers. Items 2, 3, and 6 dealt with practices in teaching children with autism, and items 7 and 8 deal with training practices of daycare workers. Each item was rated using a Lickert-type scoring scale that ranged from *Di lubos na sumasang-ayon* up to *Sumasang-ayon*.

### **3.8. Informal Imitation Skills Checklist**

The Informal Imitation Skills checklist was used to assess capabilities of daycare workers to teach imitation skills to children with Autism. The imitation activities covered are Pagtuturo ng Imitasyon gamit ang Malalaking Bahagi ng Kalamnan (Gross Motor Imitation), Pagtuturo ng Imitasyon Gamit ang Isang Bagay (Object Imitation), and Pagtuturo ng Imitasyon Gamit ang Maliliit na Bahagi ng Kalamnan (Fine Motor Imitation). Each item will be rated using a Lickert-type scoring scale that ranged from *Di lubos na sumasang-ayon* up to *Sumasang-ayon*.

### **3.9. Informal Receptive and Expressive Language Teaching Skills Checklist**

The Informal Receptive and Expressive Language Skills checklist was used to assess the capabilities of daycare workers to teach language skills to children with autism. It consists of language activities and each item will be rated using a Likert-type scoring scale that ranged from *Di lubos na sumasang-ayon* (Strongly Disagree) up *Lubos na Sumasang-ayon* (Strongly Agree).

### **3.10. Informal Joint Attention Teaching Skills checklist**

The Informal Joint Attention skills checklist was used to assess the capabilities of daycare workers to teach joint attention skills to children with autism. It consists of activities engaging in joint attention and each item will be rated using a Likert-type scoring scale that ranged from *Di lubos na sumasang-ayon* (Strongly Disagree) up *Lubos na Sumasang-ayon* (Strongly Agree).

Play-Based Early Intervention Program for Daycare Teachers of Children with Autism consists of activities facilitated by daycare workers after the lectures and training. The ideal amount of training is a complex issue that depends on the goals of the program, program resources, and characteristics of daycare workers. Adequate training and developing expertise is congruent to preparedness and accurate performance that may result to positive criticisms from self and others (Calzada et al., 2005).

### 3.11. Data Collection Procedure

First, the researcher sought participants for the study through needs assessment interviews to daycare workers from six municipalities of Nueva Ecija to determine their teaching experience on children with autism in daycare centers. Fifteen participants joined the needs assessment interview, focus group discussions and pre-tests. This identified the issues and concerns related to teaching children with autism, their impression on the condition and teaching experience, familiarity in early intervention, and use of play in education. Pre-training knowledge, attitude, beliefs and practices were determined following the validated questions on *Gabay sa Nakatutok na Pang-grupong Talakayan* or Focus Group Discussion (FGD). Ten out of fifteen joined the succeeding discussion, lectures and training sessions. Results from the discussions aided the development of training program content including the activities per target skills.

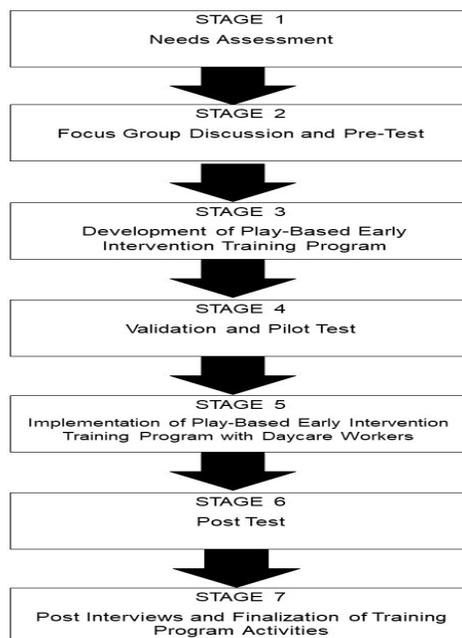
Second, the researcher created a play-based imitation, joint attention and language training program for daycare workers. The researcher sought the help of validators to determine the appropriateness of activities and clarity of terms which was written in Filipino.

Third, information on characteristics, prevalence, symptoms and play behaviors of children with autism for eight participants were provided. Baseline teaching demonstration of the daycare workers were done before and after focus group discussions.

Fourth, informal training was conducted in daycare centers and the researcher's place. Discussions and feedback after every session were included. Lectures and hand-outs were given during the training.

Fifth, post interviews and the same informal questionnaires on attitude, beliefs, and practices imitation, joint attention and language were done as post test on the last day of training session.

*Figure 2.*  
*Phases of Data Gathering*



## 4. Presentation and Analysis of Data

The study was conducted in daycare centers and in the school where the researcher works. The participants were visited in four consecutive Saturdays for the training and five days for the implementation from November to December of 2013. The schedule of implementation phase was done in two daycare centers. The Play-based Early Intervention Training Program was checked and revised periodically over time to meet the criteria set for each child with autism inside the daycare centers. The performance of daycare workers in implementing the Play-based Early Intervention Program to the children with autism inside the daycare centers was observed and noted by the researcher, and comments were consistently given to them after every session to establish teaching skills using Play-based Early Intervention Program.

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### 4.1. Research Question 1. What existing attitudes, beliefs, and practices do daycare workers have in managing students with autism?

Attitude, beliefs, and practices were identified using the needs assessment and focus group discussion guide. This study found out that the attitudes of daycare workers are determinant of the outcome of early intervention for children with autism in daycare centers. Positive attitude about the potential of children with autism through play are noted. They were reported during interviews, focus group discussions, and demonstration of play-based early intervention. They were able to relate and connect their previous knowledge from teaching experience and previous seminars the commonality of play between children with and without autism in terms of facilitation in an inclusive setting.

Daycare workers believe that mainstreaming children with autism in the daycare may improve manifestations of early delays as well as to increase focus, attention and compliance. They also believe they can manage the behavior of children with autism to fully participate and socialize with other children at the daycare. They are confident in carrying out the mandate of no child left behind policy where there is an emphasis to include children with autism to receive special education in the form of play.

Daycare workers provide reward system, ignoring of the inappropriate behavior, redirection of tantrums and free play. They were able to reflect on the need for additional opportunities to add knowledge on how to manage children with autism in the daycare. They were able to recognize the proper practices and importance of effective teacher-pupil relationship that may also affect the attitudes in teaching children with autism.

### **Attitudes of Daycare Workers Toward Children with Autism**

The attitudes of the daycare workers toward children with autism are varied. 86% of the daycare workers say that children with autism need education to catch up with children without autism. While 67% of daycare workers say that children with autism need love, affection, attention and caring. Children with autism's behavior are challenging to manage according to 33 % of daycare workers. Daycare workers have affirmative attitudes towards children with autism while others say that children with autism are different.

Teachers' attitudes directly affect the successful implementation of mainstreaming (Monahan et al, 1996). When teachers do not feel that they can successfully educate children with disabilities, they are less likely to support mainstreaming practices. Provisions of more resources and support, training on how to make curriculum and implement programs could become more positive.

Early childhood teachers include daycare workers have important roles to promote children's play. There are many appropriate ways teachers can support and improve the quality of children's play inside the centers. They also help children including those with special needs to create new experiences, expand and enhance ideas for play as well as to stimulate children's imaginative play. Their positive attitude affects the evaluation where children's play can be identified and be used in classroom planning and activities. (Tarman & Tarman, 2011).

It is noted that there were 86% of daycare workers who expressed affirmative attitudes towards children with autism. These include "*hinahabaan ang pasensya*", "*pinag-aaralan upang mabigyan ng tamang pagtuturo*", "*nararapat na bantayan at alagaan*", "*binibigyan ng atensyon*", "*binibigyan ng sapat na pagmamaha*". [Being more patient and attentive to children with autism in order to use the proper way of teaching, close supervision, and to give love and care.]

### **To Extend Patience When Teaching Children with Autism.**

Daycare workers are patient with their students and at times doubly patient with their students with autism. 100% of daycare workers unanimously felt that patience is important when teaching children with autism. They also stated that children with autism may benefit by providing much attention need in the daycare center. However, they did not elaborate as to what activity where they need to provide further attention.

*“Dapat kailangan ng mahabang pasensya, kasi yung batang may autismo kailangan talaga nila ng nararapat na atensyon. Dapat bantayan dahil sila ung inaalagaan”.* [They must be well taken care of because of their condition.] *“Bigyan ng sapat na pagmamahal para maramdaman nila na hindi sila nag-iisa.”* [They must be loved for them to feel that they are not alone.] “They see themselves as child care provider and second parents when it comes to the welfare of children with autism (Dunlap et. al, 2006). – **Daycare Worker 1**

It is stated that teaching children with autism needs additional effort and perseverance in order to connect and reach out to them. Patience and autism need to have a relationship. When you raise a child with autism, it's tough at times to obtain patience and even more so to maintain it. It's important to develop patience. Childcare workers were told many times more often than a typical developing child what they need to do in certain instances before it really sinks in for them (Tooley, 2010).

### **To Increase Attention of Children with Autism.**

Daycare workers felt that they need to improve their students' attention since autism greatly affects focus and sustainability of activities that requires response and reaction with 73% of them expressed this suggestion. Participants facilitate teaching strategies they have proven effective and yield positive results. They also stressed out that when children improve attention, it becomes easier to teach them. Through this training, they were able to understand the importance of joint attention in establishing communication and social interaction for children with autism. Interest and expression are being communicated by a child with autism through joint attention and understand by the receiver is already an achievement (Lawton & Kasari, 2012).

*“Tutukan yung bata na may autismo, para mas matuto. More development, para maging normal.”* [Emphasizes the learning prioritization of children with autism to come up with significant improvement]- **Daycare Worker 3**

*“Kailangan ng atensyon, tagalan kung saan makukuha yung atensyon at kahinaan. Pag aralan mo sila dun, kung saan mo sila makukuha, dun sila tutukan.”* [Attention must be given to children with autism to determine his weakness and from here you will determine the help they need.] – **Daycare Worker 4**

*“Ang aking pananaw sa pagtuturo sa mga batang may autism ay dapat bigyan sila ng higit na atensyon, maging sa bahay o paaralan, upang magkaroon ng mas mataas na percent ang kanila pagkatuto.”* [In my point of view, children with autism must be given more attention when you teach them, both in school and at home.] – **Daycare Worker 10**

Autism is being described in terms of impairment in social communication, interaction and behavior that affects the school planning and developing techniques that will allow children with autism to receive inclusive curriculum. Instead of focusing on delays, teachers act as play facilitators where outcome depends on their involvement and expectations of children's ability to play and learn from it (Wolfgang, 2004).

### **To Accept Children with Autism in the Daycare Center.**

Daycare teachers accept the underlying conditions of autism that manifest in their centers. 100% of daycare workers express the willingness to accommodate the learning needs of these children. Rejection is not an option when it comes to enrollment leading to mainstreaming of children with

special needs including those who have autism. Believing in every child's capacity to learn makes them decide to fully include these children full time.

*“Upang magkaroon din ng kaalaman ang mga batang may autism o yung tinatawag na special child, tinatanggap naming sila sa center namin.”* [Daycare workers accept children with autism in daycare centers to give them the opportunity to learn] – **Daycare Worker 5**

*“Ninainais na magkaroon ng magandang programa at pagsasama sa kanila sa ibang mga bata”.* [We want to give them a program wherein they will be given the chance to study, play and socialize with other children]. – **Daycare Worker 6**

Daycare workers accept children with autism in daycare because they believe that these children may learn from them. Building an atmosphere that fosters acceptance of disability and diversity of skills in the regular classroom is essential to facilitate learning of children with autism (Lindsay et al., 2014).

Teachers who are in favor of inclusion builds self-confidence and self-esteem; presents an opportunity for all children to interact and learn from each other. (Hamour & Muhaidat, 2013). Exposure, learning experiences and direct interactions might lead to positive attitude towards children with autism, believing that they can be included in the regular classroom (Park & Chitiyo, 2011).

Teachers who work with children with autism on a daily basis tend to display positive attitude towards inclusion since they are aware of their roles in fostering children's educational goals (Engstrand & Pettersson, 2012); They display positive attitude by concluding that inclusive education is beneficial for children with autism (Nelly-Barnes et al., 2011).

Research has also shown that teachers with more professional development experience in special education and mainstreaming showed more positive attitudes toward mainstreaming (Avradimis, et al., 2000)

Teachers that possessed the highest positive attitudes towards an intervention such as play as part of inclusion tended to possess the highest positive attitude and confidence in their teaching practice. Those with the highest positive attitudes towards inclusive education and practice tended to have experience of disability and diversity (Beacham & McIntosh, 2014).

### **To Recognize Challenges of Teaching Children with Autism.**

Autism behaviors exhibited in the daycare is an overwhelming challenge for daycare workers. It also includes planning of how and what to teach, dealing with different learning style, and managing social and speech delays. It is also inevitable to work with parents of these children who have seen the underlying problems caused by autism. Working hand in hand with the parents is also an important element to make the program successful as stressed by 86% of the daycare workers.

*“Nagiging challenge o hamon sa aming pagtuturo”, “pabago bago ang kilos ng batang may autism sa loob ng paaralan na nakakaapekto sa klase”* [It becomes a challenge in our line of teaching. Children with Autism show different attitudes inside the classroom which greatly affect the class and the way we teach.] – **Daycare Worker 5.**

*“Ang aking pananaw sa pagtuturo ng mga batang may autism ay challenge o paghamon sa aming kakayahan sa paghahandle. Pag tinaggap mo sila sa center, dapat kaya mong turuan at mahalaga din yung pakikipagtulungan sa magulang nila”* [It is challenging to teach children with autism. When you accept them in daycare, you should know how to teach them. It is also important to collaborate with the parents.] – **Daycare Worker 7**

*“Ang aking pananaw sa pagtuturo ng mga batang may autism ay challenge o paghamon sa aming kakayanan bilang isang daycare worker. Sila kasi yung parang walang naririnig at may ginagawa lang nila yung gusto nilang gawin”* [Teaching children with autism is a challenge for a dayworker like me. It’s like the children don’t hear anything and they just do whatever they want.] – **Daycare Worker 8**

Once you accept children with autism as a pupil, it is considered a challenge to make their lives better and to improve behaviors. They described that these children as *“may sariling mundo”, “parang bingi”, “sumisigaw at minsan tumatawa ng sila lang ang nakakaintindi”, “mahirap tawagin at paupuin”*. [In their point of view, teaching children with autism is a challenge for us on how to handle them with our own capabilities.] – **Daycare worker 9**

Teachers’ perception of their self-efficacy plays an important role in providing appropriate teaching methods and accepting the conditions of children with autism that may affect their center’s learning environment (Busby et al., 2012). According to Syriopoulou-delli et al (2012). The result of teachers’ enrichment training and working experience is important in identifying teachers’ perceptions and efficiency. It is a leveling up of professional role both in assisting and leading the intervention for children with autism.

Another challenge for daycare workers is the need for classroom materials from outdoor equipment to making teacher-made activities for arts and crafts.

*“Medyo kulang din yung mga laruan at gamit namin sa pagtuturo pati sa mga special needs. Kailangan din nila yung mga laruan at playground sana.”* – **Daycare Worker 10**

Additional toys, teaching materials and play equipment are more important if not equal to the training and seminars receive by daycare workers. These factors affect their perception as well as fill the gaps between curriculum and program implementation (Leblanc et al., 2009). Daycare workers treat children with autism as their own. They were aware that education as intervention is one way of teaching that may address delays as well as to introduce basic concepts normal children know. By acknowledging and accepting the problems inside the centers related with having pupils with autism, the teacher is seeking the path to look for effective intervention as well as professional growth (Soto-Chodiman et al, 2009)

### **Passion for Teaching.**

Daycare teachers have the passion for teaching children. Empathy and understanding the conditions of children with autism are shown. There were 93% of daycare workers stressed out that children with autism are still being taught and loved along with other children despite behavioral concerns.

Teaching children with autism is a decision-making process where accepting and desire of making these pupils improve are highly considered. This positive attitude shapes practice which determines the success of any class. Teachers truly believe that they can deliver a workable plan

hoping to make significant change in how children with autism can be taught in a regular setting (Sandfort, 2015).

*“Itinuturing namin na parang anak. Binibigyan naming ng love and care kahit na lage silang tumatayo at di sumusunod sa pinapagawa.”* [We consider them as our own children. We love and care for them even if they always show inappropriate behavior such as standing up and noncompliance.] – **Daycare Worker 9**

*“Kailangan ng mga batang may autism ang special care. Ina-allow ko yung yaya sa loob ng daycare kasi ako lang mag-isa nagtuturo tapos madami silang estudyante ko.”* [Children with autism need special care. I allow them to assist by his/her guardian inside the center because I have many pupils to attend to.] – **Daycare Worker 11**

Positive attitudes of teachers greatly affect the success and effectiveness of their instruction. They were accommodating of having pupils with autism in their regular classroom where they facilitate learning, adjust to inclusive conditions and create new programs for children with autism (Cassady, 2011).

Daycare workers view teaching as satisfactorily rewarding. They serve children with autism despite of lack of training and necessary teaching materials. They also believed that teaching is about helping these children to experience and learn the same with regular children.

*“Pag maganda ang naituturo mo, naibabahagi mo, mas maganda ang kakalabasan. Isang bokasyon na pagbibigay ng malasakit sa kapwa.”* [If you teach well, you’ll see good results. Serving the people is a commitment.] – **Daycare Worker 12**

*“Foundation, maganda yung maituro, isang bokasyon mo, iba yung ability ko sa pagtuturo.”* [Teaching children with autism is about building a foundation for learning. Teaching is a vocation, I have my own way of teaching which differs– **Daycare Worker 13**

When you teach children with autism and you know that they learn, the outcome of the result is positive. Teaching is a vocation and learning served as foundation for children with autism. Inclusive placement such as daycare centers where early intervention placement is possible with suitable programs, meeting the needs of a child with autism is challenging. It is the responsibility of the teacher to seek and explore pedagogies that would clearly influence the early development of children with autism (Vander Wiele, 2011).

### **Teaching Children with Autism Based on Encounter and Experience.**

Daycare workers have received seminar and workshop on nature of autism, its characteristics and types, assessment and classroom management. With 86% of daycare workers have previous teaching experiences with children with special needs, most of them are more confident in mainstreaming these pupils in the center. There were 66% of daycare workers have more teaching experiences while 73% claimed that they have already classroom encounter with children with autism and they believed these children can be accepted and taught along with regular children. Center-based experience of pupils with autism has been shown to support more affirmative attitudes toward the inclusion of pupils with autism.

*“Magamit ang guro na maibahagi sa bata ang kanyang natutunan para madevelop ang batang may autism.”* [Apply what has been learned to improve the condition o children with autism.]–  
**Daycare Worker 14**

*“Ituro mo din sa kanila kung ano yung tinuturo sa mo sa batang normal para matutunan din nila yung ginagawa ng mga normal na bata.”* [Teach them (children with autism) what you teach to typically-developed pupils.] – **Daycare Worker 15**

Daycare workers implement what they have learned from seminars. They think they can also use same teaching methodologies they have done with regular pupils but with adjustments and modifications. Positive perspective from daycare workers is a determinant in their ability to carry out maximum learning potential and develop programs. Furthermore, all of them stressed out the continuous need for additional resources and training.

Daycare workers expressed their attitude to children with autism by extending their patience while teaching them because they may exhibit inappropriate behaviors and tantrums such as shouting, crying when they do not get what they want, lying on the floor, and going around the room and also non-compliance behavior during lessons.

*“Pabago-bago ang attitude, nananakit, tahimik, kain ng kain kahit nagle-lesson, at nagwawala.”* [They showed different attitudes: they are sometimes quiet, most of the time they eat. They hurt other children; when in class they are out of control most of the time.] – **Daycare Worker 2.**

Autism varies from person to person in the level of severity, characteristics and manifestation of symptoms. No two individuals are alike and indicators ranges from mild to severe and may change overtime. Children with autism fail to display appropriate social cues, sharing of interest and emotional reciprocity (APA, 2016; Wolfberg, 2003). Behavior issues commonly observed in children with autism are due to the delayed development in language and cognitive area. This prevents them from expressing their needs and using functional communication which can result to maladaptive behaviors (Scheuermann, Webber, Boutot, & Goodwin, 2003). Problems and issues concerning the implementation of effective programming are inevitable because of the challenges and severity of autism condition. Teachers should recognize that the problems that children with autism exhibit are caused by developmental delays which are involuntary because of unpredictability of situations and inability to act what are expected from them in social setting (De Boer, 2009).

### **Beliefs Toward Children with Autism**

Daycare workers expressed a broad range of beliefs based on their teaching experience in the centers. Themes were identified as positive and related to the occurrences throughout their workday with general and specific terms used. All daycare workers have positive perspective on how they think children with autism should be treated, how to teach and overall perception on how the disability affect their learning.

According to early childhood educators, inclusion of children with special needs promote a climate that increases sensitivity and acceptance of diversity while decreasing teasing and bullying based upon physical or ability differences. Exposure to the general education curriculum promoted improved cognitive, academic, and language skills (Vakil et al. 2009). Educators unequivocally agreed that inclusive education was necessary and crucial for students with autism who, due to the nature of their condition, are likely to need and benefit from access to typically

developing peers who model age-appropriate language, social skills, and behaviour (Sansosti, 2008).

Daycare workers describe behaviors and experiences they observe, 53% of them stated: *“may kakulangan sila upang matuto”, “naniniwala na isang hamon o challenge ang pagtuturo sa mga batang may autism”*. [There are hindrances in order for them to learn. It is a challenge to teach children with autism.] *“Di mo sila mapigilan tumayo at tumakbo habang nagkaklase.” “Kaya ko sila turuan kung may assistant ako kasi meron ako naging estudyante na iyak ng iyak pag hindi niya nakuha yung gusto niya at minsan ibinabato yung mga gamit.”* [In a practical sense, it would be more manageable to handle students with difficult behavior if there were shadow or assistant teachers.]

### **Teaching Children with Autism in Daycare May Improve Developmental Delays.**

Daycare workers recognize that the children with autism need to be educated to gain skills necessary for them to survive school demands. All daycare workers believe that they can allot time to teach to address issues and establish learning foundation.

Children with autism who have limited social skills and developmental delays are likely to be segregated from the group, and are prevented from joining even small group play. And yet without active participation, there will be lesser chance of establishing play and enhance socialization necessary for inclusion (Wolfberg, 2009).

Most of preschool programs for children with autism are advocating integration to acquire skills and behaviors leading from small to larger group. Prerequisite skills are important component of their curriculum as well as identifying skill and behavior issues embedded in autism. By including children with autism in a mainstream setting means additional opportunities for them to interact and play (Handleman & Harris, 2000).

*“Di sila makasunod sa klase dahil delay sila.” “Ang mga batang may autismo ay dapat maturuan, dagdagan ang pagbibigay ng atensyon.”* [They cannot catch up with the lessons easily. Children with autism must be given more attention in order for them to learn.] – **Daycare Worker 1**

*“Kahit na may mga problema sa pagtuturo dahil kakaiba sila dapat pa rin bigyan ng time, atensyon at wag ikakahiya. Imbis, maagapan at matuto, kailangan ng foundation.”* [Despite the problem we encounter in teaching children with autism, they must be given time and attention. We should not be ashamed, rather give them our support and understanding in order for them to learn.] – **Daycare Worker 12**

Issues pertaining to the inclusion of children with autism in the daycare center may not be a problem since daycare workers believe that these children need to educate. Daycare workers believe that they are one of the helpers in the community. They have the responsibility of teaching students with autism to the best of their ability.

*“Sa pagtuturo ng batang may autismo, ‘di gaanong mahirap, at least kahit papaano nakakatulong kami.”* [It is not very hard for us to teach children with autism, at least we can be of help to them.] – **Daycare Worker 2**

Daycare workers viewed the responsibility beyond teaching children with autism. As a second parent to these children who accommodate and monitor their welfare, they have also accepted the role and responsibility of a service provider by attending to inappropriate behaviors, facilitation of group class and play with other children, letting the child and family experience that they are accepted.

**Daycare Worker 3** *“Sila yung dapat binibigyang pansin diba. Sila yung may mga kakulangan. Buong kagalingan dapat silang tulungan.” [They must be the ones to be given more attention because they are special children.]*

Daycare workers believe that teaching children with autism is more than learning assurance. Giving attention means addressing the lack of skills children with autism displayed.

### **Teaching Children with Autism May Improve Play**

Play is one of the core activities in the daycare. Daycare workers emphasized the need for play whenever children with and without autism stand up, run around or cry. They believe that they can learn more about play when it comes to including children with autism in their class. Paraprofessionals can be trained to conduct play activities and behavior strategies in a natural setting (O’Guin, 2010).

Guided participation in integrated play lets children with autism access play to grow and be with their typically-developed peers in meaningful and functional social play. Through play, engagement of children with autism increased and at the same time self-stimulatory behaviors decreased. Play of children with autism paired with developmentally appropriate activities yield long term positive results (Gould, 2015; LaBelle, 2002).

*“May mga nag iimprove naman na mga bata kahit papano. Ginagawa namin yung kaunting natutunan sa mga seminar at training ng ibang mga nagpupunta dito.” “Naituro na rin naman sa amin yung paglalaro. Pag ayaw nila sumunod, pinaglalaro na lang namin sila o kaya hinahayaan” [There are some children who improved. We are applying what we have learned from seminars and trainings. We also have learned how to play with them. If they do not want to follow us, we do not force them to do so.] – Daycare Worker 3*

*“Naniniwala naman ako na pwede talaga sila ihalo sa normal na mga bata. Kahit mahirap magturo, hindi naman pwede hiwalay ang pagtuturo sa kanila.” [I believe that they can mingle with other regular children. Even if it is hard to do so, I can teach them at the same time.]*

- **Daycare Worker 4**

*“Kailangan sila turuan ng maayos at maliwanag.” “Madalas na pagsama sa pagtuturo yung pagsulat ng pangalan, pagbibilang at pagbabasa.” [They must be taught properly and clearly. Writing their names, reading and counting are some things to consider.] – Daycare Worker 5.*  
*“Kulang sa atensyon sa academic performance, madaling mawala sa focus.” “Pero pag sumusunod at behave naman sila, pinaglalaro ko parang reward na niya yun.” [They lack attention with regards to academic performance. They easily stayed out of focus. If they follow instructions and behave properly, I gave them rewards by allowing them to play] – Daycare Worker 6*

*“Nahihirapan silang magfocus habang nakikinig sa teacher. Maaaring magkaroon sila ng hyperactivity behavior habang nakikinig o gumagawa ng activities.” [They lack attention with*

regards to academic performance. They easily stayed out of focus. If they follow instructions and behave properly, I gave them rewards by allowing them to play.] – **Daycare Worker 10**

Daycare workers believe that play can be a reward and redirection for inappropriate behaviors inside the center. 73 % of daycare workers have used play to let the children with autism calm down. They believe and subscribe what they have learned from local seminars and readings if they can still remember combined with teaching experience. One of the major problems of the children with autism is the focus and impulsive behavior while the class is ongoing as stated by 66% of the daycare workers. 80% of them have ignoring behavior and letting the children have free time to let the inappropriate behavior pass away.

### **Mainstreaming Children with Autism in Daycare Centers.**

In the advent of inclusion, there is a need for students with autism to take part in mainstream activities such as schooling, participating in community activities and taking responsibility. Despite of its complexity and limited studies on the effectiveness of early group intervention, teachers are ready with special education support to make these children learn skills in a group set up (Ferraioli & Harris, 2011).

*“Marami na akong naturuan na may special needs kahit dati. Sa una kasi di mo naman malalaman at yung itsura nila e parang wala naming problema. Tinuturuan din naming sila kung ano yung alam namin para magkaroon ng magandang buhay.” [I have taught children with special needs before. You cannot tell the learning problems by their physical features. We (daycare workers) teach based on what we know to improve their lives.]– **Daycare Worker 5***

*“Naniniwala kami na pag naturuan sila pwede silang makisalamuha at makipagsabayan sa mga normal na bata.” [We (daycare workers) believe that we can teach them to participate and catch up with other kids.] – **Daycare Worker 6***

*“Naniniwala ako na pag pinaparamdam naming na normal siya, naintindihan din nila yun kahit paano at mas nakukuha mo yung loob nila. Hindi rin namin sila sine-separate.” [I believe that children with autism can feel and understand how we treat them as regular children.] – **Daycare Worker 9***

Inclusion and co-teaching are gaining in popularity as administrators seek to provide the least-restrictive environment, which often is the most cost-effective — and beneficial far beyond the student with autism. For students who can be served effectively in general education classes, their life outcomes — socially, vocationally, and academically — are going to be much better than for students in a separate class. Autism is a social pragmatic disorder, so the more opportunities these students have to interact with other students, the better they are able to develop those skills (Paul, 2009).

### **Teaching Children with Autism to Discover Potentials.**

The daycare workers saw the potential that each student with autism had. Despite their delays, they believe that they can achieve something in life.

*“Sa aking dalawang (2) taong pagtuturo sa Daycare Center, nakilala ko ang mga batang may autism at naniniwala na dapat silang bigyan ng higit na pagtuon sa pag-tuturo at linangin kung ano man ang kanilang natatagong kakayahan.” [In my two years of teaching, I have known and*

*believed that children with autism should receive intensive intervention and enhance their abilities.] – Daycare Worker 10*

Adequate training and knowledge of daycare workers on teaching children with autism may influence their belief that these children still need to be educated and experience typical setting and environment in the centers as confirmed by all daycare workers. They still acknowledge that they can be of help and may be able to help children with autism along with typically-developed children. Their beliefs are suggestive in nature to acquire skills and knowledge about autism.

Daycare workers acknowledge the deficits and lack of learning skills and development that they believe may affect the learning of a child with autism inside the daycare center. However, 73% of daycare workers believe that giving additional attention to children with autism inside their centers will be beneficial. It is their right to be educated with other regular children and include them in various activities as revealed by 80% of daycare workers. Along with these, all daycare workers believe they need to have deeper understanding and patience pertaining to the delays that may exhibit and interfere the class. Teachers of children with special needs believe they can influence their students' achievement. Professional experiences and education level play a big role in delivering positive intervention. The more teaching experience the teachers have, the higher efficacy belief observed, lack of training and certification results in lower efficacy. However, staff development training is recommended to fill-up gaps in the teaching strategies and techniques (Dunlosky et al., 2013).

### **Need for Special Education**

Daycare center is an avenue of learning, social interaction and play in early childhood. It provides ample opportunities to experience being involved in group activities where sharing and collaboration among pupils and teachers happen. It is a natural environment where children with autism can also be a part of. Among the daycare worker, 66% of them indicated the need for special education training for them as well as for children with autism. 53 %of daycare workers referred their students to special education either in public or private institution.

**Daycare Worker 7:** *“Sa tingin ko po ay dapat isama siya o kaya ay doon paturuan sa mga eskuwelahan na mga ganun din sa mga katulad niya na may espesyal na pangangailangan.”*  
[In my opinion, they must be enrolled in a school that offers special education.]

These children need special education to meet their pre-academic, psychosocial, language, cognitive and address behavior problems wherein regular school cannot be met. Group instruction promotes observational learning as an upgrade from one-on-one instruction to give these children a chance to hone their skills, increase attention, play with peers, develop tolerance from sensory issues, and receive proper educational placement (Leaf et al, 2008).

Daycare workers reported positive beliefs about the possibility of children with autism to join daycare play activities with other typically-developed peers. With 86% of them viewed the training program as successful intervention strategy. All daycare workers indicated a change in their perception of what children with autism can do if given the proper intervention.

Daycare workers noted that continuous training is needed in early intervention especially play. They supported and encouraged to share their knowledge to parents and other co-teachers to impart their beliefs. They felt instrumental in establishing play and learning environment among children with and without autism.

## Practices toward Children with Autism

Daycare workers revealed that there was an inadequate training when it comes to teaching practices needed to accommodate children with autism. Seminars and workshops were not consistent and regularly done to update them in teaching especially with special needs as claimed by 80% of daycare workers. Some of them attended private conferences if they were only invited. Their training was obtained when they were already teaching in the daycare centers as confirmed by all daycare workers. .

Daycare workers attitude plays a vital role in performing duties and responsibilities when teaching children with autism. According to most participants, they are willing to accept children with autism with emotional and physical support from the organization. They all agree that appropriate practice require change in views and perception on the autism condition. The involvement of the teacher in a child's play during the early years can be useful in laying a solid foundation for the child (Tarman & Tarman 2011).

### Daycare Workers Allow Children with Autism to Participate in Class

*“Pagkakaroon ng palatuntunan aktibidad sa paaralan. [Children with autism should be included in center program or activities.] “Sinasabay sa pagkanta kasama ang ibang mga bata. Laging tinatawag sa klase at hindi isinasantabi.” [Join them in group singing. They are always given the chance to participate in class.] – Daycare Worker 2*

It is beneficial to spend time working with typically-developing children concerning their peers with autism. Classmates of children with autism can be taught to interact, initiate, reinforce, and prompt their peers with autism to participate in appropriate social interaction and functional play (Belchic & Harris, 1994).

*“Isinasali sila sa mga exercises at games sa loob ng daycare.” – Daycare Worker 5*  
*“Isama sa mga classmate, obserbahan ang daily routine, gumamit ng program materials tulad ng blocks, mga bagay na pinagduduktong, mga bagay na madedevelop siya at wag ipakita na special child siya.” – Daycare Worker 6*

*“Isinasali sila sa palatuntunan o aktibidad ng paaralan. Pakikisalamuha sa ibang bata. Bigyan ng higit na atensyon. [They are included in the program or activities in school. They are allowed to join other kids. They should be given more attention.] – Daycare Worker 10*

*“Wag ibukod na nag-iisa, ipakita na normal din siya, wag ipakita na may diperensya. Bigyan ng activities na mabibilang siya. Kung saan may interes siya. Alamin ang gusto niya.” [Do not isolate children with autism from others. Treat them as if they are like other typically-developed children. Give them activities that interest them. Know their other needs.] – Daycare Worker 12*

*“Unti-unting nilalapit sa mga normal na bata, paulit-ulit na pagkausap at pagsasanay sa word na iyon.” [Find ways on how children with autism can be friends to other children. Introduce them to each other by name. Slowly talk to them more often.] – Daycare Worker 14*

Developmental differences in children with autism should not be a barrier in receiving inclusive learning. Daycare workers are one of the people who play an important role in using these children's interest and strengths rather weaknesses. It is important to guide children with autism when introducing play, assisting in group activities to learn new things and reduce problematic behavior, and establish rapport and relationships among other pupils (Beavan & Phillips, 2007).

Inclusion of children with autism in the regular setting with typically-developed peers might be a trial and error for teachers. But still, it evidently works especially when they see improvement no matter how big or small, as long it builds momentum for early learning foundation. Positive attitude is one of the important factors to enable teachers effectively support the inclusion of children with autism. The teachers are also responsible in making these children feel safe, confident and accepted (Casey, 2010).

### **Daycare Workers Provide Behavior Strategies.**

Daycare workers facilitate what they have previously learned about managing and teaching children with autism in their centers. They exert effort to modify themes and daily lessons to at least make sure that these children learn every day. 60% of daycare workers stressed out that they make use of ignoring, social praises and reward to accommodate maladaptive behaviors.

*“Kunwari yung bata hindi mo ma-catch ung atensyon niya hayaan mo lang siya sa gusto niyang paglaruan hanggan sa tumigil siya. May oras naman para makuha mo ung atensyon niya, magsasawa din sya.”* [If you can't get their attention, let them do their own thing until they stopped. Time comes they will be tired of what they are doing. In this case you may get their attention.] – **Daycare Worker 1**

*“Sa story telling nagbibigay ng example tungkol sa pang araw araw na buhay. Halimbawa: Pagginawa mo ito, may Jollibee ka kay mommy.”* [I tell stories and relate it to day to day activities. i.e If you will do this, you can have Jollibee (reward) from you mother.]– **Daycare Worker 1**

*“Gusto ko matutunan kung paano mai-improve yung pag-aaral nila. Kung paano makuha yung atensyon nila.”* [I want to learn how to improve their (children with autism) education and to increase their attention.]–**Daycare Worker 4**

*“Ayo-ayuin mo sila, mapapasunod mo din sila. “Kailangan nila ng malaking pagmamahal.”* [In order for them to follow you, you have to convince them (children with autism). They need a lot of love.] – **Daycare Worker 4**

*“Kukuhanin ko muna atensyon niya bago ko siya turuan kasi minsan may tantrums siya.”* [Since children with autism may exhibit tantrums, you have to get their (children with autism) attention for compliance before proceeding to teach.) – **Daycare Worker 9**

*“Magkaroon ng extrang oras para turuan sila sa loob ng daycare.” “Isinasali sila sa mga exercises at games sa loob ng daycare.”* [We practice giving extra time to teach them at daycare center. Encourage them to join in groups games and exercise in the daycare center.] – **Daycare Worker 5**

*“Ang aking stratehiya ay dapat ako ay mayroong pang unawa sa kanilang katangian, matiyaga sa pagtuturo, may puso at pagmamahal sa mga batang may autism.”* [My strategy is that I have

to understand their abilities, patient in teaching, a heart and love to autistic children.] – **Daycare Worker 7**

*“Kailangan pa naming ng mga makabagong kagamitan, kaalaman o karagdagang pag aaral at psychological knowledge sa mga batang may autism.”* [We need modern equipment and knowledge and additional learning and psychological knowledge in order to handle autistic children.] – **Daycare Worker 9**

Since children with autism manifest delays that prevent them from participating in group class, daycare workers assist them in group activities. Daycare workers who have previous training and workshop in managing children with autism were able to implement activities using flashcards, pictures, blocks and visual aids in manila paper to establish attention and compliance. They provide reward such as social praises, free time and access to toys when positive behavior are presented. There were 86% of daycare workers admitted they have resorted to verbal promises and bribing of materials and allowing guardian to pacify unwanted behaviors during class.

Encouragement to participate in daycare programs and to attend everyday class were suggested by 73.33% of daycare workers. There were 80% of daycare workers who emphasized consistent communication as a helping tool to inform about the progress the child with autism has made.

*“Pagsasali sa mga aktibidad kasama ang ibang mga bata”, “pinapangakuan ng premyo kung susunod sa guro”, “paggamit ng iba’t-ibang stratehiya sa pagtuturo kasama ang drawing, play, story-telling at exercises at games sa loob ng daycare”, “isinasama din sa mga palatuntunan sa daycare” “sinusuyo ang mga batang may autism”, “may kasamang pang unawa sa pagtuturo”, “may koneksyon o pakikipagtulungan sa tagapag alaga ng mga batang may autism”.* [Engaging different activities together with other children, give rewards if they accomplish things instructed by the teacher. Utilizing different strategies in teaching like drawing, play, story-telling, exercises and games inside the daycare center is included in our practice. Give them the chance to participate in the program, giving them tender loving care with understanding. There must be close communication with the guardians of children with autism.] – **Daycare Worker 10**

### **Daycare Workers Provide Art and Play Activities**

To catch the attention of children with autism, daycare workers use manipulatives available in their own center. They also use paper-pencil tasks which to some are enticing while some pupils may not be receiving enough reinforcement to establish attention. Children with autism manifest their preferred toys or activities in different ways from each other. *“Katulad lang ng pagtuturo ko sa mga normal na bata.”; “Paglalaro, training at seminar sa mga daycare worker.”* [The same of what I am teaching to normal kids. Playing, training and conducting seminars to daycare workers.] – **Daycare Worker 6**

*“Gumagamit ako ng play, drawing, at pakikisalamuha sa ibang bata.”* [I used play, drawing and mingling with other kids.] – **Daycare Worker 5**

*“Binibigyan ng mga laruan, doon nakatuon ang kaisipan, sa bagay na kanyang pinaglalaruan.”*  
*“Unti-unting nilalapit sa mga normal na bata, paulit-ulit na pagkausap at pagsasanay sa word na*

*iyon.*” [Give them toys that nice interest them. Talk to them more often at let them associate themselves with other kids.] – **Daycare Worker 14**

*“Halimbawa nakikipaglaro, hayaan na makipaglaro sa iba. Kaylangan laging kasali, ipaunawa sa ibang bata ang kalagayan niya. .”* [Let children with autism play with other kids. Make other children understand the autism condition.]

*“Kasali rin sila sa snack at kung kaya yung buong oras sa center. Sa pagkain, nauubos ung lahat ng baon.”* [Children with autism participate in the snack time, and if possible the whole time. They were able to finish their food during snack time.], – **Daycare Worker 13**

*“Hayaan mo silang makipaglaro sa ibang bata, pero susubaybayan mo parin siya. Yung pagkilos, kaylangan nakasunod sa kanila dahil mabilis silang kumilos.”* [Facilitate play of (children with autism) with other kids. Monitor their movements because they (children with autism) tend to move fast.]– **Daycare Worker 15**

*“Paggamit ng mga visual aids, yung napapanood nila paulit-ulit na ipa-play sa television para makuha nila.”* [The use of visual aids and watching videos repetitively may aid their (children with autism) learning.]– **Daycare Worker 15**

Through art and play, daycare workers may understand their preferences, skills and abilities. Children with autism increased verbal communication and eye contact and at the same time lessen body movements during table top activities. Child-directed play with teacher support is an important factor when considering early intervention using play especially for those who have Autism (Lantz, 2001).

### **Need for Parent Communication and Evaluation**

Effective teaching involves constant update and communication between parents and daycare workers on children’s development and improvement in the center. Some parents of children with autism who look for an early intervention rely on the daycare centers’ capacity to accommodate their children to socialize and address delays. School interventions for children with autism should prefer periodic parent–teacher communication rather than the usual agreement and initial meeting, to improve assistance at home and strengthen collaboration (Azzad et al., 2016).

Studies suggest that the earlier the start of intervention, the higher percentage of developmental improvement occurs. Furthermore, early intervention is lesser expensive and efficient compared to late intervention (Koegel et al, 2014).

*“Nagbibigay din kami ng suggestion sa magulang kapag alam namin yung pag-handle sa bata.”* [We give suggestions to parents on how to handle their children.] – **Daycare Worker 4**

*“Kailangan ay pakikipagtulungan ng mga magulang para turuan din sila sa bahay yung mga bagay na nahuhuli sila. Pwede naman sila bigyan ng activities na kaya nila sa bahay.”* [Parents’ cooperation is needed at home. They can give activities to children with autism.] – **Daycare Worker 5**

*“Kailangan ang pag-approach ay yung parents ay di didiretstuhin, di bibiglain, alamin yung kakayahan ng bata. Baka pwede nating i-evaluate.”* [There is a need to approach the parents involved and ask some questions pertaining to the behavior of the child. This must be done for proper evaluation of the child.] – **Daycare Worker 6**

*“Wag ibukod na nag-iisa, ipakita na normal din siya, wag ipakita na may diperensya. Bigyan ng activities na mabibilang siya. Kung saan may interes siya. Alamin ang gusto niya.”* [Do not isolate the child rather treat them as a normal child. Let them join other children. Know what his interests and likes.] – **Daycare Worker 12**

*“Alamin muna kung ano ang lebel ng behavior. Halimbawa sa paglalaro kung binigyan mo ng laruan yung bata at binalibag sayo espeyal yung bata. Kung hindi interesado, hindi naman dapat hinaharas, palakasin mo yung desire nya, masisira yung loob niya kung lalo mong idadown, unti-unti mong ituro kaylangan unawain.”* [Be aware of the child's behavior of he throws a toy given to him, he is special. Treat him as a normal one.] – **Daycare Worker 13**

*“Halimbawa sa pakikisama sa iba, kaylangan madevelop yung pakikisama hindi puro sila lang. kaylangan kasama sila, pagtatawagin mo rin sila, kahit hindi nila kaya. Kaylangan may self-interest, sa indoor activity halimbawa isali mo sila may reward sila para mapush sila, at magkaroon ng interest.”* [Let him play with other children. Care them to recite as much as possible. Let them participate in indoor activities and give them reward as needed.] – **Daycare Worker 8**

*“Halimbawa pag kayong dalawa lang kailangan turuan mabuti, ipaliwanag ang kahalagahan ng tinuturo. Yung ibang mga magulang hindi naman nila tinuturuan. Dapat tinuturuan din nila sa bahay.”* *“Pwedeng isama, ipaunawa na sa pag-aaral na kaylangan matuto sya, na kailangan umangat siya.”* [Teaching children with autism needs an extra effort especially ensuring that they learn. Some parents do not teach their children at home. But it should be emphasized the importance of follow up at home.] – **Daycare Worker 13**

*“May mga problema din yung mga magulang nila na pang pinansyal kaya minsan hindi nakakapasok.”* [Financial problem is one of the reasons why children with autism were not able to go to school.]

*“May mga magulang na di tanggap yung kondisyon ng anak nila, ikinakahiya, kailangan kumbinsihin, ipakita na tanggap nila.* [Some parents are in denial of their children's condition. They must be open minded to accept the fact that they have children who need their unconditional love and care. The conditions cause by autism may worsen if not given properly addressed.

*“Pwede lumala yung kalagayan nila, bigyan ng atensyon ng parents, nasa parents yung problema.”* [Parents should provide attention to their child with autism to prevent the condition to worsen.] – **Daycare Worker 12**

*“Papaulit sa kanya, pagagawa muna sa isang bata, tapos ipapaulit sa kanya. Practis para mas matuto sya.”* *“Sa family, dapat nandun yung subaybay nila, dapat laging kasama yung bata. Wag laging hayaan na nagcocomputer at more on educational CD.”* [Ask the child to do an activity by what other children did. Practice doing activities. The family must give the child proper guidance. Give the children the importance that they need. Refrain from giving those gadgets instead give them educational toys.] – **Daycare Worker 14**

The prevalence of undiagnosed and suspected children with autism increased in public school systems. For these pupils to be successful learners, it is imperative that they have the opportunity to experience an effective early-intervention program. Because there is a high

probability that many of them will get their education and intervention in the public school setting, teachers, paraprofessionals, specialists and administrators must be provided with best practices in training and evidence-based.

An inclusive setting refers to the full-time placement of children with disabilities in a classroom with typically developing peers. Within the inclusive setting, children with disabilities are participating in the same activities and routines as typically developing children (Odom, 2000). The daycare workers expressed the need to be exposed in seminars and training about teaching children with autism. They stressed out the use of educational materials and toys inside the daycare center. Play, art, fine and gross motor activities are important in the intervention of children with autism.

### **Daycare Workers Teach with Patience.**

Continuous training and teaching greatly contribute to the positive attitude of teachers of children with autism. Daycare workers believe that children with autism and regular children can be taught and learn side by side. Daycare workers also learn from experience and improve their areas of expertise such accommodations, play program and delivery of instructions (Walters, 2012).

*“Ang aking stratehiya ay dapat ako ay mayroong pang-unawa sa kanilang katangian, matiyaga sa pagtuturo, may puso at pagmamahal sa batang may austismo.”* [My strategy is I have to understand their characteristics, patient in teaching, heart and love to autistic children.]

*“Yung pagtuturo naman ay iba sa daycare kasi mas marami kami laro. Pero maraming pagkakataon na nagwawala sila pero sa pagtuturo naman kailangan ng mahabang pasenyasa e.”* [The manner of teaching in regular school is different from daycare centers. There is more play in daycare center. There are times children are not in the mood and are uncontrollable but it took a lot of patience in teaching.] – **Daycare Worker 8**

*“Kung nakakaupo sila, mas maganda. Minsan inuuna ko yung ibang bata tapos nilalapitan ko naman yung may autism para iaassist. Natuturuan namin sila kasama ng ibang bata kahit mahirap. Natututo din naman kami dahil kakaiba yung mga ugali nila.”* [It is better if children with autism learn to sit still during class. Sometimes I teach other children before attending children with autism. It is really hard teaching them at the same time. At least I can learn from their behavior.] --- **Daycare Worker 9**

*“Case-to-case basis ang kailangan ng mga batang may autism dahil iba’t-ibang level ang mga batang may autism. Iba’t-ibang atensyon ang kanilang kailangan. Halimbawa, late sa speech, kulang sa socialization, kulang sa self-help, binibigyan ko sila ng special attention at isinasali naming sa mga regular na bata. Kailangan din naming ng mga espesyal na gamit para sa mga batang may autism.”* [Center needs of children with autism varies because there are different levels and conditions of children with autism. They need different kinds of attention example are those with speech delay, lacking in socialization, self-help receptive and expressive language, I give them special attention and let them join other normal children. We also need special equipment’s to be used to autistic children.] – **Daycare Worker 10**

Daycare workers practice the inclusion of children with autism by accepting them in the daycare because of the policy of “no child left behind.” Sitting-in or accepting them formally in the daycare were a common practice since their parents usually request for socialization and if possible, address delays. But due to lack of training, materials and understanding, these children’s condition may get worsen instead. Daycare worker practice from reward system to

group integration are already existing. They also stressed out “*pagsasali sa mga aktibidad*”, “*pagbibigay premyo*”, “*paggamit ng iba’t ibang stratehiya sa pagtuturo*”, “*sinasama sa ibang bata*”, “*pag-unawa*”, “*pakikipagtulungan*”, “*pagkuha ng atensyon*”, “*pagbibigay ng pagmamahal*”, “*pagbibigay ng pasensya*”, “*pinaglalaro*”, “*pangangailangan ng ibang gamit*”, “*kaalaman at pag aaral*”, and “*pagtitiyaga*”. [They also stressed out participating in different activities, giving rewards or prizes, using strategies in teaching and allowing them to join other children, understanding, cooperation, giving attention. Giving them the chance to play with others, providing their needs and patience.]

Program sustainability indicates challenges in teaching efforts of children with special needs. Supportive conditions from their supervisors provide opportunities for training and align practices of staff to support each other. The collaboration between regular and special education teachers yield goal leading to enhancement of learners (Tomlinson, 2008).

Teachers have mixed feelings about the current mainstreaming practices. They acknowledge some benefits for children with disabilities being educated in the general education setting, they were also quick to point out areas in the mainstreaming practices were less than desirable. The teachers’ negative attitudes toward mainstreaming impact their professional practices. Teachers who do not support mainstreaming practices demonstrate this disapproval by their actions and by the strategies they use in the classroom (Fuchs & Fuchs, 1998).

Daycare workers reflected on the importance relationship of both positive attitude and effective practices. Most of the daycare workers appreciate the training program compared before where they have limited knowledge about early intervention and play.

The results showed that early intervention training program enhanced attitude, beliefs and practices using play. It creates an awareness among daycare workers about the play-based interventions and may share their experience to address the daycare needs of children with autism.

Daycare workers realized the importance of play and its many applications and modification that can be done. They were able to identify play strategies through singing, group games and free play that will work to increase communication, imitation and joint attention. Pre-training interview and observations revealed that daycare workers have little or minimal play time for children, unfacilitated play where children have their free play instead of having specific games of group play. They also rely on what they only have in their centers. They have their own strategies when dealing children with autism such as ignoring, letting caregiver of parent stay inside the room to assist and calm the child, giving verbal praises as well as conditions that they will have their free time if they behave in class.

In post-training, daycare workers were able to modify songs and group play that could be suitable in an inclusive classroom. Positive attitude, beliefs could reinforce successful teaching practices. These can also assist other teachers to change their views and perceptions with regards to early intervention using play and children with autism.

#### **4.2. Research Question 2: What is the Level of Skills in Teaching Imitation, Joint Attention and Language Among Daycare Workers**

- a. Before intervention**
- b. After intervention**

During the focus group discussion and initial training session, most daycare workers stated that their knowledge about autism are lacking. However, some of the daycare workers said that they were able to make adjustments for these children. Some of the daycare workers were familiar with circle time songs and games. They were able to listen, follow instructions, and asked for clarifications when the children exhibit inappropriate behavior and not able to follow them. Some daycare workers feel that play will only happen if the children with autism cooperates with lesser tantrums. They were inconvenient in giving verbal and gestural commands, use materials and assist children to play.

They stressed out that they cannot choose the severity of children with autism who will enroll in their center. There are times that daycare workers observed and asked questions because of the unfamiliarity of the autism condition exhibited by the children and the activity itself. Some daycare workers were able to ask how they will incorporate play activities in their lessons and schedule. But during the third up to fifth day of early intervention training program, the level of skills of daycare workers improved through cooperation, patience and perseverance. The daycare workers started to memorize circle time songs, implement games which they can observe children with autism participate, modify group activities where they can make children with autism attend and display joint attention, identify materials which they can make such as flashcards and flipflap book. They were able to sing and memorize songs. Finally, the daycare workers were able to recognize continuous training, additional knowledge and meaningful interaction among the class.

The level of skills in teaching imitation, joint attention and language was determined before using the Play-Based Early Intervention Program. The same skills were assessed after implementing the Play-Based Early Intervention Program. The results are shown in the figure below

*Table 1  
 Level of Skills in Teaching Imitation, Joint Attention and Language Before  
 Play-based Early Intervention Training Program*

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
ImitationPRe	10	30.00	75.00	57.8000	16.27404
LanguagePRe	10	30.00	55.00	49.8000	7.81452
JointAPre	10	13.00	20.00	16.2000	2.61619
Valid N (listwise)	10				

Overall, the mean scores prior to intervention were at the average level.

Table 6 shows that before the play-based early intervention training program, the overall mean of skill level is 57.80 for Imitation, implying that the daycare workers were at average level. Daycare workers can implement imitation activities such as *Paggaya Gamit ang Malaking Bahagi ng Kalamnan* (Gross Motor), *Paggaya Gamit and Isang Bagay* (Object Imitation), and *Paggaya Gamit ang Maliit na Bahagi ng Kalamnan* (Fine Motor) with minimal to moderate supervision to use physical and hand-over-hand assistance to children with autism, modelling the skills, to reward the appropriate response and modify activities concerning imitation.

*Table 2*  
*Level of Skills in Teaching Imitation, Joint Attention and Language After Early Intervention Training Program*

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
ImitationPost	10	47.00	75.00	67.4000	9.58239
LanguagePost	10	47.00	59.00	54.8000	4.07704
JointAPost	10	16.00	20.00	18.3000	1.76698
Valid N (listwise)	10				

Overall, the mean scores prior to intervention were at the high level,

After using Play-Based Early Intervention program, Table 7 above showed that there was a significant improvement in imitating *pag-upo, pag-tayo, pag-talon, paghagis ng bola, pagpapatunog ng dalawang bagay na hawak, pagpalakpak at pagkawayng kamay*. The overall mean was 67.40, which implies that daycare workers can generally implement imitation activities with minimal to unsupervised manner. This improvement over pre-test results showed that Early Intervention Training Program is an effective approach on how to teach Imitation to children with Autism.

Teaching skills of daycare workers facilitating Language before the early intervention training program was at 49.80. They were familiar with the activities such as *pagtuturo ng kanta, pagtuturo ng aksyon sa mga pang-batang kanta, pagtuturo upang tumingin kapag tinawag ang pangalan*. However, daycare workers had difficulty in getting the attention of children with autism. Other factors that contribute to the problems pertaining to the delivery of instructions were the level of assistance the child needs, the persistent inappropriate behavior, environmental distracters and lack of child's attention. Verbal imitation is used for corrective feedback and supervision.

After using Play-Based Early Intervention Program, marked improvement was noted in most of the skill when teaching Language activities. These were *pagtuturo ng kanta, pagtuturo ng aksyon sa mga pang-batang kanta, pagtuturo upang tumingin kapag tinawag ang pangalan, pagtuturo upang umupo, Pagtuturo sa pagsunod sa isang utos, pagtuturo upang pangalanan ang iba't-ibang bagay, pagtuturo ng tunog ng letra*. Daycare workers were able to use behavior strategies such as ignoring inappropriate behavior, using social praises when the child follows and exhibits positive behavior, and redirective activities to inappropriate behaviors.

Teaching Joint Attention Skills was the third skill included in the play-based early intervention training program. As indicated by the mean of 16.20, the daycare workers needed corrective feedback and practice supervision on establishing joint attention activities such as *pagtuturo ng pisikal na paglalaro, paglalaro gamit ang laruan, pagtuturo upang humingi ng gusto, pagtuturo ng pagkuha ng bagay na inutos*. Challenging behaviors of children with autism affect the establishment of play focusing on joint attention.

A substantial improvement was noted after using Play-Based Early Intervention Program. Joint attention activities were implemented by daycare workers by themselves with observed teaching techniques they find working with children with autism. These were as *pagtuturo ng pisikal na paglalaro, paglalaro gamit ang laruan, pagtuturo upang humingi ng gusto, pagtuturo ng pagkuha ng bagay na inutos*, with an overall mean of 18.30.

Daycare workers were reminded that play is child-centered and should not be insisted since play can be facilitated when the child with autism is compliant-ready. Since it was the first time that the researcher introduced the play-based program, repetitions of drills were done initially.

Daycare workers were still motivated and persistent to get the attention of children with autism and make a “connection” though eye contact before giving the commands to imitate object movement and actions. They said teaching children with autism are physically tiring and needs a lot of patience. They also added that a program is necessary for them to have something to follow when teaching happens in the daycare center.

Problems in addressing compliance were observed together with hyperactivities such as climbing on the table, running away, lying down on the floor, throwing and crying. But after two sessions, daycare workers were able to initiate redirections and engage the children with autism in making them to look, hold objects, imitate body movements and sounds. Daycare workers gradually felt confident and patiently waiting for responses from children with autism. Play engagements occurred between the daycare workers and children with autism on the third up to the fifth day.

**4.3. Research Question 3: Is there a Significant Difference in the Skills in Teaching Imitation, Joint Attention and Language Among Daycare Workers After Intervention Using the Play-based Program?**

Overall, there was a significant difference in skills in teaching imitation, joint attention and language skills among daycare workers after using the play-based program. The following table shows the SPSS output of Wilcoxon Signed Ranks Test:

*Table 3*  
*SPSS Output of Wilcoxon Signed Ranks Test Result*  
*Test Statistics<sup>a</sup>*

	<i>ImitationPost - ImitationPre</i>	<i>LamguagePos t - LanguagePre</i>	<i>JointAPost - JointAPre</i>
<i>Z</i>	<i>-2.670<sup>b</sup></i>	<i>-2.499<sup>b</sup></i>	<i>-2.687<sup>b</sup></i>
<i>Asymp. Sig. (2- tailed)</i>	<i>.008</i>	<i>.012</i>	<i>.007</i>

*a. Wilcoxon Signed Ranks Test*  
*b. Based on negative ranks.*

The Non-Parametric Wilcoxon Signed Rank Test was used to determine if there is significant improvement in how the daycare workers facilitated the areas of concern for children with autism using the play-based program. Pre test and Post test scores were subjected to Wilcoxon signed rank test, the values computed showed that higher mean values in the post test were statistically different from the mean values in the pre test and are therefore statistically higher. On this account, the null hypothesis is rejected, and the alternative hypothesis is accepted. It can be inferred that Play-Based Early Intervention Program was effective. Teachers and paraprofessionals improved their skills in working with children with autism with performance

feedback, modelling and correction procedure. Furthermore, instructional training of daycare workers elevated the level of interactions. The combination of training, goal-setting and of performance increased teacher-child interactions in daycare centers (Hall et al., 2010). Attitude, beliefs and practice were also improved followed by a series of training especially when teachers experienced positive results from the intervention (Patel, R., & Khamis-Dakwar, 2005).

According to Mazurik & Stefanou (2010), children with autism increased their social skills were improved when facilitated by paraprofessionals in the general education classroom and at the same time, those improvements can lead to better relationship with typically-developed peers.

A Wilcoxon signed-rank test showed that the play-based intervention program elicited a statistically significant change teaching imitation ( $Z=-2.670$ ,  $p=.008$ ), joint attention ( $Z=-2.499$ ,  $p=.012$ ) and language skills ( $Z=-2.687$ ,  $Z=.007$ ) among daycare workers. It can be inferred that the Play-Based Early Intervention Program was effective in establishing early intervention play level of daycare workers focusing on Imitation, Joint attention and Language of children with autism. Daycare workers performance feedback and demonstration of play activities in imitation, joint attention and language were noted after two days of initial training sessions. In imitation of body movements: pagtuturo ng pag-upo, pagtayo, pagtalon; Object Imitation: shaking maracas and tambourine; and Action Imitation: clapping, waving, and raising arms were successfully implemented to children with autism. Children with autism on the otherhand can performed the imitation activities with physical assistance from daycare workers.

#### **Changes in Teaching Imitation Skills.**

From the table, it can be seen that there was a statistically significant change in teaching imitation skills ( $Z=-2.670$ ,  $p=.008$ ), among the participants.

Following the training, all daycare workers were able to show imitation of object and action techniques supplied with corrective feedback during the first two days of training proper. They also became increasingly aware of other problems that may cause a child with autism the inability to imitate in a play setting. They stressed out that teaching imitation using objects was easier than teaching to imitate both fine and gross motor activities.

Imitation is an important social-communication skill that emerges early in development. It performs an important role in the development of cognitive and social skills in young children (Ingersoll, 2010). In children with autism, imitation has been found to be significantly impaired (Williams et al., 2004). Delays in imitation have been associated with impairments in other social-communication skills led to propose that imitation is a critical skill to target in early intervention (Ingersoll, 2008; Rogers et al., 2003).

#### **Changes in Teaching Language Skills.**

From the table, it can be seen that there was a statistically significant change in teaching language skills ( $Z=-2.687$ ,  $Z=.007$ ) among daycare workers.

The ability of daycare workers to incorporate language into play have significantly increased. However, they also recognized that most if not all children with autism have language delays that may be a barrier in producing meaningful utterance. They have agreed that verbal imitation is prerequisite in teaching children with autism to make verbal sound initially before moving up to labels. They were able to lead circle time and memorize nursery rhyme songs. They

were able to reconnect their observation to actual teaching of verbal imitation to children with autism that attention, looking and listening are prerequisite in teaching language skills. They were able to teach children with autism to follow receptive commands easier than making children with autism imitate words due to inattention and inappropriate behaviors displayed.

By providing the teachers with appropriate strategies for communication, children with autism will improve. This would lead for the teachers to facilitate meaningful communication among students with and without special needs inside the classroom (Min & Wah, 2011).

### **Changes in Teaching Joint Attention Skills.**

From the table, it can be seen that there was a statistically significant change in teaching joint attention ( $Z=-2.499$ ,  $p=.012$ )

Joint attention was the first skill to be taught and implement that showed positive results. Daycare workers were able to engage children with autism in joint attention bids that lasted for three to ten minutes or more, depend on the preference of the child with autism on the toy being used. They were able to use toys to make these children attend and manipulated to establish joint attention.

Significant changes were noted in the following Joint attention activities: jumping, crawling and climbing on blocks during gross motor play, sitting down on the chair, looking and holding hands during circle time, and participating in trip to Jerusalem, stop and go, shooting balls with minimal to moderate assistance. Maladaptive behaviors such as shouting, throwing, and resistance were noted when assisted by daycare workers.

Joint-attention (JA) has emerged as a potential underlying link between socio-communication deficits and primary cognitive substrates of autism. It is defined as an early social-communicative behavior in which two individual share attentional focus on an object or event, for the sole purpose of sharing that interesting object with each other (Rao, 2014).

Studies using group comparison design and matched sample design showed that teaching approach may be effective in improving joint attention skills in children with autism (Kasari, 2002). Children who were taught at the appropriate developmental play level acquired the play activities and generalized them more often than when taught play skills at their actual age level (Lifter, et al., 1993).

Studies have documented proofs on the outcome of interventions that target joint attention. Intervention models in which joint attention figures as one of the key components of the curriculum have reported good and positive results. Children with autism would show deficiencies in development of joint attention behavior and this would be one of the first characteristics of the disorder (Naber et al., 2007).

We should acknowledge that joint attention is lacking in children with autism, and we should increase our efforts in addressing this skill, similar to increasing our efforts toward acting reciprocally with them (Gernsbacher, 2006). Three important elements were found to be essential in training paraprofessionals: practical training, staff should find the training favorable, and long term on-going support for trained skills for maintenance (Leblanc et al., 2005). Teacher training

is important to provide quality service for those individuals with autism. Basic principles, instructional techniques, behavioral teaching methods may improve (Luiselli et al., 2008).

Study shows that special education teachers have a high degree of importance in competencies representing the foundation for services and intervention programs confirmed by professional standards of practice (Theeb et al., 2014). The result showed a high degree of importance for all professional competencies of teachers. However, there are needs in special education to consider the improvement of the level of practice of competencies. Training in play-based early intervention will enable daycare workers to implement activities focusing to improve imitation, joint attention and language of children with autism.

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#### **4.4. Research Question 4: What are the Components of Play-based Early Intervention Program for Children with Autism that Daycare Workers find to be Significant?**

Activities of the play-based early intervention program came from the focus group discussions, baseline teaching skills, observations and interviews of daycare workers. General activities which can be task analyzed and breakdown into specific ones are identified. They expounded that inclusion of children with autism together with regular children is important if they want to implement the trainings they have had undergo. They gave characteristics a typical teacher would do such as *“turuan ng maayos at maliwanag”* (teach orderly and clearly) refers to breaking down lessons, adding examples, and lots of repetitions. They were eager to know more about the autism in general as well as behaviors they already observed in their centers.

#### **Causes of Autism and Maladaptive Behaviors**

The first significant component of play-based early intervention program is about providing established and accurate characteristics of children with autism to daycare workers using reliable sources such as DSM5 and researched-based literatures. The participants asked *“Saan ba talaga ito nakukuha?”* [What causes autism?] *“Bakit noong araw ay wala namang mga ganyan.”* [Why are there no reported cases back in the day?] Some participants were able to say common behaviors they observed such as *“Para silang bingi kasi di sila lumilingon pag tinatawag.”* [They (children with autism) are like deaf. They do not attend when they are called.] *“Hindi sila sumasagot pag tinatanong.”* [They (children with autism) do not answer when asked.] *“Nagsasalita at naglalaro sila mag-isa sa isang sulok.”* [They (children with autism) do self-talk and play solitarily.] *“Minsan pinapabayaan ko dahil umiiyak at sumisigaw pag inaya mo.”* [Sometimes, I ignore them (children with autism) when they shout and and cry when you called them.] *“Hindi sila makagaya ng mga pinapagawa halimabawa yung mga exercise bago magsimula yung klase.”* [They (children with autism) cannot imitate activities such as exercises before the class starts.] Teachers who have limited knowledge and experience in teaching children with autism should be provided with information on what is really the autism condition. To meet the expectations of being a teacher of children with autism, related training and hands-on experience are counted to increase understanding and effective teaching service (Hoff, 2008; Syriopoulou-delli et al., 2012).

#### **Additional Activities and Teaching Strategies**

Daycare workers stressed out that *“case to case basis na pagtuturo ang kailangan sa mga batang my autism”*, *“iba’t ibang pagtuturo ang kailangan nila dahil nahuhuli sila sa pagsasalita at pakikisalamuha, kulang sa espesyal na gamit.”* [Various teaching strategies are needed for them

(children with autism) because of the delayed in speech and socialization. Materials or teaching are lacking.] Daycare workers have ideas and understanding of the delays. But still, additional training and materials are needed; *“kulang sa training sa pagtuturo”, “pagtuturo na gumaya, makisalamuha at makipag usap/makipag ugnayan sa ibang tao”, “nahihirapan sila mag-focus habang nakikinig sa teacher”, at “paulit ulit na pagtuturo”, “paulit ulit na praktis” at “pagsubaybay ng mga magulang ang kailangan.” “Sana may magsuporta sa amin para may mga ganitong training kasi mahirap talaga kng paano mo sila tuturuan kasama ang ibang bata.”* Daycare workers stressed out how important training is in addressing impairments commonly observable in children with autism in the daycare. The need for adapting teaching methods was necessary due to the fact that these children exhibit various behaviors with different level of skills. It is important to evaluate the attitude and experience of community-based workers as basis for creating appropriate programs. This will also give way to apply evidenced-based techniques in early intervention programs (Stahmer et al., 2005).

### **Parental Support and Cooperation**

There were overlapping answers from daycare workers such as a *“kulang sa pang pinansyal ang magulang”* [Parents are lacking financially.], Daycare workers need the full cooperation of parents especially financially in order to carry out tasks for their children. *“Dalhin ang mga batang may special needs sa eskwelahan na tulad nila”*. [Bring children with autism to the schools that will cater them.] They understand that there were options related regarding the early intervention of children with autism which is related to the financial capacity of families to send their children to therapy or bigger school. Parental involvement from program planning, program monitoring up to following-up activities at home are important for effective early intervention. They assist teachers by giving vital information about the history of the family and child’s present behaviors. They continue doing hands-on supervision for possible learning opportunities (Zwaigenbaum et al., 2015).

Play is a way of learning. Daycare workers provide a variety of play approach where core deficits in autism are targeted indirectly. They stressed out the importance of play with manipulatives such as clay, water, and other materials that can be found in the surroundings. Beads, strings, blocks and other wooden and colorful materials were also helpful in getting the attention of children with autism. Singing, dancing and other body movements were found to be enjoyable and imitative. Some children with autism respond to musical sounds and physical activities. Daycare workers believe that listening and watching other kids sing to nursery rhyme songs were also instrumental in improving speech. Modeling was also important to get attention and teach appropriate behavior in the center.

Daycare teachers stressed out that continuous training is very important to be successful in implementing early intervention programs. They found out that children with autism imitate peers more than structured or one on one play. Body movements such as dancing, jumping and running are effective activities to lower hyperactivity

Daycare workers found language as a commonality in terms of significant delay. However, they thought that verbal imitation and indirect activities such as listening to songs and tapping on a beat will help these children acquire language

Daycare workers understood and applied the activities that may improve joint attention, language and imitation of children with Autism thru one on one and group activities. Although there were lacking materials, they were able to modify to facilitate activities.

## **5. Summary, Conclusions and Recommendations**

### **5.1 Summary of Findings**

The results in the study are presented according to the specific raised questions.

Data gathered revealed the following findings:

1. The existing attitudes, beliefs and practices of daycare workers in managing children with autism are towards in providing early intervention of autism symptoms using acquired knowledge, addressing delays in general terms, understanding the autism condition, attending to the various needs of children with autism, and total acceptance. Ten daycare workers were able to complete the focus group discussions, interviews, and training for two week to implement imitatin, joint attention and language activities. They were able to realize the importance of early intervention for children with autism and accepted the training procedures.
2. Daycare workers were trained and applied play-based early intervention program addressing imitation, joint attention and language of children autism. These are under the revised DSM V's autism symptoms: Social and Communication Domain which combines social interaction aspects and verbal/ non-verbal communication aspects.
3. Play-based early intervention training program is an effective approach to increase imitation, joint attention and language. Early detection and early intervention are critical factors to the success of any child who has a disability. The effects of teaching play strategies to children with autism show significant increase in the amount of complex types of play when toys are incorporated. (Francke & Geist, 2004). Improvement in receptive and expressive communication have been found to prevent maladaptive behaviors. (National Research Council, 2001). Joint attention was closely linked with deficits in play. This is an import target for early communication intervention (Gwynne-Atwater, 2011). Play is correlated with imitation in autism. Children with autism have problems on the imitation of functional and arbitrary actions with play materials. However, Ingersoll and Scheibman (2006) found an increase in the use of spontaneous pretend play in young children with autism after teaching them to imitate actions with objects.

### **5.2 Conclusions**

1. This study reveals daycare workers have existing knowledge and baseline experience about autism which can be used for continuous teacher training and acceptance of children with autism and other disabilities in the daycare. It is also proven that play can bridge communication gaps, imitation and joint attention problems which can assist children with and without special needs in the daycare. Most daycare workers rated themselves with the highest scores on imitation, joint attention and language activities. They have previous knowledge on children with autism, their behaviors and management. They were also familiar with the songs, games and some activities as it were also included in their curriculum.

Following the training program, daycare workers' attitude and beliefs made a substantial improvement and reflected into their practices. They also have high expectations that early intervention program may produce positive results for children with autism. Teacher's

attitude and beliefs regarding inclusion of children with autism greatly influence the delivery mode of their instruction. Attitude were more positive if they are adequately informed and have the necessary knowledge about autism. It is recommended that daycare workers of children with autism should immerse to professional development (Agojo, 2011).

2. There was a significant difference in scores before and after the training program. Pre-test and post-test were subjected to Wilcoxon Non-Parametric Test. The test revealed that Post-test was higher than the pre-test of daycare workers. Overall, there was a significant difference in skills in teaching imitation, joint attention and language skills among daycare workers after using the play-based program. Training workshops were related to higher quality skills of child care workers regardless of educational attainment. Informal training works to meet the necessary skills a daycare should possess (Burchinal et al, 2002).
3. Daycare workers expressed positive and favorable feedback about the play-based training and its implementation to children with autism. Support for future training of daycare workers to teach children with autism is possible. When teachers of children with autism were trained and follow the teaching procedure to meet the baseline skills and improve behaviors, there is high probability of engagement, increased repetitions of acquired behaviour and generalization which have practical and functional value (Barton & Wolery, 2010).

### **5.3 Recommendations**

1. Future research would benefit from exploring the daycare workers' attitude, beliefs, and practices and their effects on teaching competencies and practices. Positive attitude, beliefs and practices were found to be significant in creating goals, activities, facilitation and modification of training programs. Long term planning and goals for training supervision will yield better training foundation for new daycare workers to enhance their attitude, beliefs and practices.
2. The play-based early intervention program can be improved and modified to the changing needs of both daycare workers and children with autism. It may be also used by daycare workers who teach other disabilities. In the current study, attitude, beliefs, and practices of fifteen daycare workers were identified and found out to be similarly positive. Having more participants and comparing their attitude, beliefs and practices to childcare institution and private early childhood centers would be beneficial. With these positive traits among daycare workers, there will be a higher chance of being successful in future training especially when these daycare workers experienced positive results where they witnessed positive outcome as a result of these kind of trainings. On the other hand, the findings addressed the need to expand early intervention training programs to include other developmental and behavior problems cause by autism.
3. Play-based early intervention program can be facilitated by daycare workers to children with autism and continuously be improved, sustained and modified according to the changing patterns, severity of conditions, and culture of Filipino children with autism is possible since average daycare centers per city are between seventy to one hundred or more. Play inside the daycare center can be done to teach children with autism to imitate, introduce communication and joint attention. Studies on different types of play and their possibility of implementation in daycare centers with children with autism are needed. It is important to include the necessary materials to establish play and use specific skill to children with autism. Specific type of play can be identified and used to address specific type of delays

or other related developmental problems. Play-based early intervention program can be used in transition from daycare to kinder level and kinder to grade one.

4. Researchers may study the effects of play-based early intervention program on children with autism and other disabilities. Additional research is needed to develop and validate play-based programs focusing on children with autism as participants. Future studies can focus on behavior-based play components and strategies as well as a use of play across discipline such as occupational therapy, physical therapy and speech and language therapy. The daycare workers taught the imitation, joint attention and language activities in their own teaching methods. Needs assessment, focus group discussion, lecture and training were facilitated to improve their way of teaching. They were familiar with the activities but material such as wooden blocks, musical instruments animal figures and cars are some of the things they wish to have in their center

## **6. Implications**

This chapter presents implications from the research findings that may enlighten the role of daycare workers as one of professionals who can teach children with autism given with appropriate training to enrich their skills and to direct and make a significant impact for future studies in the field of special education, program planning and play development.

### **6.1. Special Education Study**

In the fields of early childhood education and special education, a number of research may be conducted by using different population and participants. Self-rating scales can be adapted or add to other instruments. This study can be replicated in private daycare centers and preschool programs with daycare workers teaching other conditions such as attention deficit hyperactivity disorder and down syndrome.

This study is valuable to the local government agencies and private institutions whose task is training supervision. The study provided relevant information on attitude, beliefs and practices that somehow transpired the skills. Therefore, identify personality attributes that can affect them teaching. Learning competencies of daycare workers can be also identified to be a basis of new training programs.

The use of different quantitative approaches such as causal comparative and correlational can be used to identify relationships of play and academic achievement of children with and without autism. Causal comparative can be used to find out the effectiveness of training programs in improving specific teaching skills of daycare workers or early intervention effectiveness for children with autism with different level of severities. Multiple baseline across behaviors, across participants, and longitudinal study designs can also be applied to measure effectiveness of interventions.

### **6.2. Development of Training Programs**

The present criteria of autism and daycare center activities were the basis for the play-based early intervention training program for daycare workers. Daycare workers have existing knowledge about autism from previous seminars and workshops but still needs to be trained and guided to put those concepts into actions. Teachers who are already teaching in an inclusive environment

seek proper preservice training and support from administrators to maintain a successful inclusive environment (Leatherman & Niemeyer, 2005).

Specific teaching skills should be enhanced to improve imitation, joint attention, and language of children with autism. The focus group discussions and interviews were used to create the content of the training program. These also explore broad and overlapping issues on daycare worker existing attitude, beliefs and practices as well as the present issues on meeting the competencies of daycare workers to teach children with autism.

The training program can be applied in other public and private early intervention centers where children with autism and other related conditions can be accepted. This study proved that positive attitude and beliefs on teaching children with autism lead to effective practices and higher percentage that these individuals will be successful in future trainings on the other related disabilities. The demographics of child care workers and teachers such as age and educational attainment, other personality traits such as creativity, adaptability, and leadership and organizing skills can be studied to determine if these variables can have an effect on the implementation of play-based programs on children with autism. Play can be also modified to fit in other traditional or progressive type of education and specific curriculum to investigate its adaptability and effects on inclusion. This will also aid for recognizing learning areas to be improved and pave the way in creating programs to accommodate various cultural and social perspective.

Aside from possible effectivity of the training program, this study can be a benchmarking tool to balance quality service delivery leading to an increased enrollment. Daycare workers can also be trained to receive basic counselling skills to augment their interpersonal skills especially for newly diagnosed families that go through the process of adaptation. Lastly, this study suggested that there should be an evaluation criteria to come up with an alternative certification or licensure to raise the standards of daycare workers.

### **Play Development**

The importance of having a play program for teachers of children with autism especially in an early intervention setting is undeniable. The program can be aligned to the present daycare programs and support the implementation, modification and accommodation for children with autism. Inclusion is proven to be effective in the early childhood intervention. Therefore, childcare workers and other personnel including daycare workers should undergo training to receive appropriate skills and knowledge to meet the needs of children with autism (Sucuoglu et al., 2014)

When developing training programs for daycare workers of inclusive settings, gathering of data to identify the needs and current problems that need to be addressed is important. Planning and formulation of goals should be realistic and doable.

The activities and materials must be aligned with the developmental delays that need to be targeted. Modifications are practical strategies to cater the changing needs and behaviors of children with autism. Early skills that are affected by autism are imitation, joint attention and language. These core areas are critical in establishing the foundation of reading, writing and math and are interrelated with social and language. These are prerequisite to acquire more complex learning areas. Daycare center is an ideal and practical place where play is already existing. It is progressive and promoting quality informal education when inclusion becomes a norm. Laws are already in place to back-up both training of daycare workers and teaching children with autism.

Commitment, financing and enforcement of policies should take place to keep special education moving forward.

Gross motor play using obstacles, nursery rhyme songs, flashcards, books, and group games had to have more demonstrations, modeling and supported visuals and auditory to get the attention of children with autism. Baseline skills of daycare workers helped them to recall and review teaching strategies and finally make a connection to the play-based training program. Daycare workers were familiar with the activities with a sense of discovering and exploring new ideas in managing children with autism. Related activities and materials such as outdoor facilities, assistive technologies and computer application can be interspersed in play with varying level of teacher support. Play-based training programs and activities are innovative on its own that needs to be harnessed with creativity.

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