

# Increasing Attention Span by Developing Fine Motor Skills of a child with Special Needs

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**Abstract:** Many children find it difficult to pay attention during class and in general activities. Their attention span is very low and they struggle to progress. Teachers find it difficult to keep the children focused on a topic for a certain period of time. Parents are constantly complaining of their child’s low attention span and the inability to stay focused or perform a simple instruction. In order to help the children, increase attention span many research techniques and strategies are being analyzed and applied. From a very early age children start entering preschools. Most of their time of a day is spent at school. This clearly highlights that teachers play a great role in a child’s life. Teachers are able to identify a variety of skills in the children. They are able to see the child’s strengths and weaknesses. Benjamin Franklin stated that when a child is spoken to, he may forget, when taught he may remember but when the child is involved in the activity they would learn effectively. This clearly highlights that giving children hands on activities would not only keep their interest but they would learn effectively. The activities presented in this study are fun based which allows the child and teacher to enjoy the session together. Teachers could use them as a base in their lesson plans and enrich the child’s development which in turn would help to increase the child’s attention span. Through this action research parents, teachers and educationists would be able to highly benefit and provide the needed input to the child and in turn help the child towards success.

**Keywords:** Attention Span; Development Delay; Fine Motor Skills

## I. INTRODUCTION

Development delay is a term used to describe any disability for a child between the ages of 3-9 years. According to IDEA’s (Individuals with Disabilities Education Act, 2017) definition of development delay, a child with a disability includes anyone in the ages between 3-9 who has been assessed using appropriate diagnostic instruments and procedures in areas of development milestones such as physical, cognitive, communication, social, emotional and adaptive skills and in turn need special education or related services to help gain assistance. This clearly helps identify when most children would start crawling by 8 months and attempt to walk at 1 year, a child who would show a 5- or 6-months lag in attempting to crawl could be categorized as development delayed. It is estimated that around 5 – 10% of young children face development delays (Thomaidis, et al., 2014). It varies to when the child is diagnosed. In early 20<sup>th</sup> century Gesell made records of how each child goes through predictable development stages but they all develop at their

own pace and time. He further notes that external factors play a great part in a child’s life such as personality, genetics, learning styles, parenting styles, culture, health and experiences with adults. Being the first researcher and theorist, Gesell explained that a child’s development stage could differ to his chronological age. Some children are diagnosed at a very young age even as 6 months while others would be diagnosed when parents start to compare their own children with another.

The magazine; The National Academy of Sciences (2016) Parenting Matters: Supporting Parents of Children Ages 0–8, stresses the importance for parents to watch for signs of delays in development specially during the first three years of a child’s life. The article further states, that if problems are suspected, getting help sooner would help for better progress of the child. We solely see that parents play a great role in this regard. Looking out for signs that show difficulty in areas the child is facing and identifying them as soon as possible would help intervene and step in for further progress of the child. A theory based on this concept was put forward by Vygotsky (1978). He proposed a theory known as “Zone of Proximal Development”. This important concept helps to see the difference between what a child is able to achieve independently and what a child can achieve with appropriate direction given.

## LOCATING THE ZPD

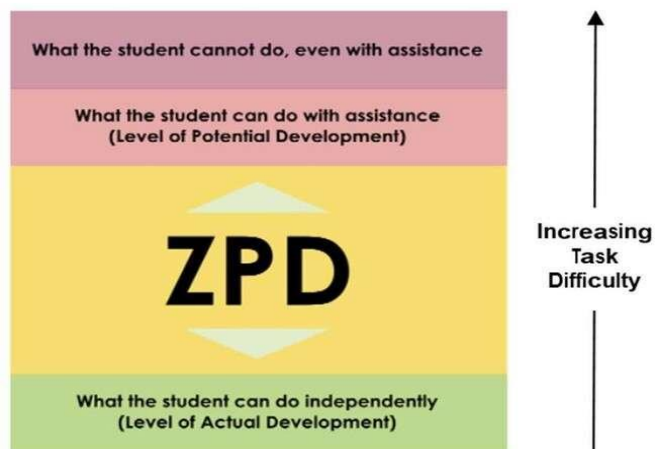


Figure 2.1

Looking closely at figure 2.1 the green area is what the child could do independently. But as the difficulty level increases

the child is then challenged to perform the task. ZPD (yellow area) is the sensitive period where guidance is given to help develop the appropriate skills and which could be used later in life. The light pink area is where the child could achieve with the given assistance.

### *Attention*

It is a common aspect to consider that children of a preschool age show signs of inattention. An environment that is full of stimuli could become very distracting that a child could find it very difficult to focus on one given aspect. The important aspect to consider would be when this problem persists for more than 4 to 6 months (Lougy et.al., 2007). Glenda Thorne and Alice Thomas (2021) in their newsletter for the Center for Development and learning, state that many fails to pay attention but many fails to pay attention a lot. They find it very difficult to focus attention on what is very important at that given time. This would prove to be a threat to life, for example when an individual does not pay attention to traffic lights accidents can occur. They continue to state that attention involves 6 aspects. These are alertness and arousal, selectivity and saliency determination, distractibility, duration of attention, previewing and planning, self-monitoring and self-regulation. Expanding on the above-mentioned aspects, alertness is the first step to gain attention. This means a person needs to be energized to pay attention on any task. The second step is selectivity. At any given time, there are a number of stimuli that keeps coming in. The brain needs to decide which needs main focus. The ability to

select the most important task is called “Saliency Determination”. This aspect is greatly needed in daily life. In the classroom a teacher would give common instructions on how to perform a task but all the guidelines cannot be written down so the brain needs to decide which aspects are important. The third step involved in gaining attention is distractibility. This refers to any mental thoughts or external environment distractions. These need to take away to be able to focus on a task. The fourth step is the duration of attention. This involves the energy needed to persist and continue in the task. Just as energy is needed to run the whole race, mental energy is needed to maintain focus on the whole task at hand. The fifth step is previewing and planning. This step refers to aspects before starting on a task to consider all possible actions and see which one is best. In the classroom if a child remembers a point while the teacher is teaching and wants to say, he/she should stop and think as to raise the hand to answer than blurt it all out. The sixth step involves self-monitoring and self-regulation. This is a necessary task especially when a task is at progress. It helps monitor and regulate own behavior so as to help maintain focus.

A theory to help understand how filtering information takes place was done (McLeod, 2018) by Donald Broadbent. He used a bottle neck approach which shows that narrower the bottle neck is, the lower the flow. Broadbent’s model on attention predicts that a person cannot consciously consider all sensory inputs at the same time. Donald Broadbent was a

great contributor to the information processing approach. He worked on how air traffic controllers’ function. A number of messages from various departments keep coming in continuously where all these messages need full attention. He finds that an air traffic controller can only deal with one message at a time and this requires decision on which one needs great importance. To help further analyze this, Broadbent created an experiment which is “dichotic listening”. He argues that information from any stimuli firstly enters a sensory buffer. From here an input is selected on the basis of its physical characteristics. We possess a limited capacity to process information and so the filter is designed to stop over load of information. He also says that when inputs have not been selected, they stay in the sensory buffer and it gets deleted. Broadbent wanted to see how humans focus their attention (selective attention). To do this he bombarded them with many stimuli at the same time. The results clearly showed that humans can pay attention to one thing at a time. This led him to produce the “filter” model / “single channel” model. This model is solely based on the sensory input of the physical characteristics. Using the base of this study, in order to improve attention span, using an external stimulus will help send signals to the brain. One activity at a time with one instruction at a time will help the brain to focus and pay attention to the task. For example; using fine motor skills activity such as picking up a button and pushing it through a bottle, helps the brain now focus on one particular task such as picking a button up.

### *Fine Motor Skills*

According to the Psychology Encyclopedia, under the title “Fine Motor skills- Infancy, Toddlerhood, Preschool, School age, Encouraging Fine Motor Development”, fine motor skill is described as the deliberate and controlled movements which require the development of the muscle and the central nervous system. At four or five months an infant start gaining the fascination to grasping objects with the hand. Slowly they would start to poke with the index finger. The greatest achievement is the pincer grip. The ability to grasp and object between the thumb and index finger amazes the child. By age one, the child is able to grasp an object using pincer grip and observe the object for a few minutes. In preschoolers, the central nervous system is still in the process of maturing. Also, during this period, the small muscles tend to tire easily and cause the challenging tasks more difficult for the child. Lots of patience is essential to help each child develop fine motor skill. Encouraging a child to develop fine motor skill requires lots of planning, time and a variety of play-based materials. These activities need to be fun filled and enjoyable. Parents can use daily activities such as helping out in the kitchen or cleaning activities will help to develop fine motor skills indirectly.

Considering the above-mentioned theoretical concepts, each child develops at their own pace and time but being alert to early signs into areas which the child is finding it difficult to deal with, will help the adult intervene at the proper time and

provide the needed assistance. This will bridge the gap of the difficulty level the child is facing. Aspects such as attention and fine motor skills were discussed above. Understanding the importance of maintaining attention as well as developing fine motor skills is greatly essential. Through the analysis of these concepts we are able to look at the whole picture of the child.

*Research findings in relation to the study (Empirical literature)*

A study done by Beth Provost et.al., (2006) compared the motor development between children with Autism Spectrum Disorder (ASD) and those without Autism Spectrum Disorder. This study was done with 56 children (42 boys & 14 girls) divided into three groups: children with ASD, Children with Developmental Delay and children with developmental concerns without motor delay. Results showed that children with ASD and children with Developmental Delay showed signs in impairment on motor development compared to children who had developmental concerns without motor delay.

A research was carried out with the objective of improving attention span using sensory motor skills, occupational therapy, listening program and a calming program. This was a one on one program with a 3-5 year aged male child. This particular child's handwriting skills were not legible when compared to peers as well as his inability to sit still and work. The goals of this case study are improving fine motor skills, improving self-regulation as well as attention span. The intervention includes occupational therapy once a week and Integrated Listening Systems (iLS) program at home. He was instructed to follow 12 sensory motor sessions as well. After 6 months the results showed that he has improved in his hand writing as well as the ability to sit still when using iLS program. This was a case study-based research which was done by the Brain Harmony organization in Florida (2018),

In increasing a child's attention span, the research done under the title "Fun Ways To Increase Attention Span" presented to the ACEI international conference Tampe, Florida, by Jackie Paxton and Teresa Shoemake (2007, May), highlights a method which is generally being overlooked which is providing fun activities to help focus on extended amounts of time. It highlights three approaches that can be easily used. The first is getting the child involved in a project that he/she shows great interest. This would include drawing, painting or threading beads. The aim of the activity would be to sit and focus on the activity. The second approach is to record a story and ask child to relate it back when done. The third approach is when getting a pet for the child.

Bandana.(2017) studied on the topic on the effectiveness of fine motor activities on fine motor skills in a child with Attention Deficit Hyperactive Disorder. For this case study a 5-year-old boy who was diagnosed with ADHD was chosen. The boy underwent 8 weeks of intervention which included 1-hour sessions that were conducted 4 times each week. Screening tools such as "The Vanderbilt ADHD Diagnostic

Teacher Rating Scale and ADHD rating Scale was used. As to evaluate the fine motor skills, PDMS-2 and Ages and Stages questionnaire (ASQ-3) was used. The result of this case study clearly showed the improvement in fine motor components as well as any fine motor impairment can be intervened using fine motor activities.

A study highlighted on the effects of fine motor activities on a child's attention. For this study 68 children were taken. The study was conducted using the pretest/posttest experimental (36 children) and control group (32 children). Here all followed fine motor activities which included painting, writing, colouring and play and used tweezers, tongs to move items. Assessment was taken using the subtest of the Cognitive Assessment System (CAS). The result obtained shows that fine motor activities are effective in increasing female child's attention and for males' aspects such as interest and choice is needed. (Roger A. Stewart et al.,2007)

## II. METHODS

### *Participants*

As it's an action research the researcher is a full participant. The researcher plays the dual role of being a researcher as well as a teacher. As a researcher the process involves gathering data, formulating objectives and then making an action plan as well as implementing it, analyzing and finding the achievement of the objectives was involved.

In this action research the child was a key participant. The child is a boy of age five years and one month. He has been diagnosed with development delay. This little boy is an active child who enjoys himself well. His family consists of one sister and both parents. This boy has achieved his milestones with delays. At a very young age he attended physiotherapy and gradually improved in his walking. He is able to sit down for a few minutes in an activity and later wonders around. He demonstrates lacks in many areas. Currently he attends a Special School. For the purpose of this action research a pseudonym (Peter) would be used.

### *Milestone Checklist*

Through the Milestone charts, the development progress of the child was found as well as the delayed period. Through this chart, the different skills in which the little boy found difficult to achieve as well as the skills that took a longer period to achieve were identified. Analyzing this Milestone, helped to gather information based the overall development delay of the boy.

(Refer Annexure – 1)

### *General Observation*

This instrument was used to analyze the manner in which the child gets about in his daily activities. It also helped see as to how far the child is able to pay attention to the tasks in class. Using the data from this instrument, the activities needed for the following day was selected.

(Refer Annexure –2)

*Participatory Observation*

The two days that the activities were done, clearly identified the various skills that the boy lacks. Such as fine motor, gross motor, expressive language and emotions. The data collected here helped to understand the short and wavering attention span of the child and in what best way to communicate with the child. (Refer Annexure – 3)

*Action Plan*

After the participatory observation was completed a detailed action plan was listed out with existing status of each activity and the achievable targets. (Refer Annexure – 4)

*Reflective Journal*

After the completion of each session, the reflective journal notes helped to analyse the actions done for the day and to see what areas needed to be improved so as to enhance the activities in order to achieve the objectives the following day. As each session has 10 different activities, the reflective notes helped to work on looking into each activity and seeing the positives and negatives and adapt accordingly to achieve the objectives. (Refer Annexure-5)

*Data Collection Process and Analysis*

Data was collected by firstly gathering information from the child’s Clinical Notes. These notes clearly explained the full diagnosis of the child. It showed the different skills the child lacks and the details of the main diagnosis. The clinical notes explain that the boy has been diagnosed with “Developmental Delay” and shows lack in many skill development areas. With the help of the parent, the milestone chart was filled in. This too shows the delayed period of 1 year and 8 months. Taking all of these into consideration, the child was observed in a class as well as the researcher had a participatory observation. During the observation it was noted that the child pays less attention to a task given. When a task is given the child stays on it for less than 2 minutes and then would attempt to move away or speak about an item or person in the environment. At times he would even cause a mess in the activity so as to want to stop working. Considering the data collected from these above instruments, the researcher analyzed the data in the following two methods.

*Qualitative Analysis*

During the observation few aspects were noted. The child mostly enjoys outdoor activities. In these activities he enjoyed working with them even though he did find it difficult. For example, in the gross motor activities he did find it hard to jump or throw to target, but he willingly participated in them without hesitation. With physical prompting he was willing to work along. During the fine motor activities, he expressed less interest. He always wanted to get up and move about rather than work. Much verbal prompting was needed to encourage being on task. His attention was very less, when participating

in these activities. In order to sustain the child’s attention at task, much physical and verbal prompting was required. To analyse the Qualitative data the researcher used Content Analysis method.

*Quantitative analysis*

To analyze the quantitative data, percentage was used in a graphical manner. The collected data was analysed to see the improvements before and after the intervention.

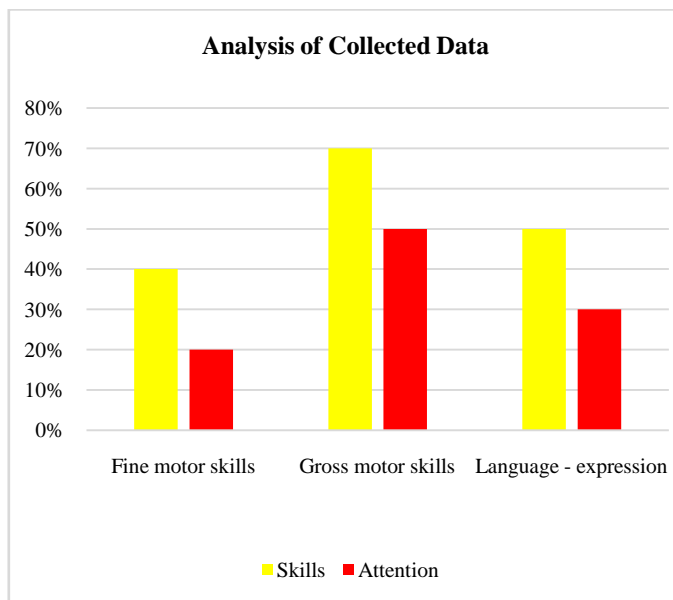
Through the collected data it was clearly noted the less attention span shown by the child. Using this data, an action plan was formed and activities were selected to increase the child’s attention span. The reflective journal helped the researcher to analyze the progress and use appropriate intervention methods.

III. RESULTS

*Objective No 1: Identify the existing attention span of a child with development delay.*

The first objective of this action research is to identify the existing attention span of the child. In order to do so, many instruments were used. Firstly, using the clinical notes information was gathered where it clearly states that he is able to sit for a few seconds and then moves on to exploring. He shows very less attention to task at hand.

Next a general observation as well as a participatory observation was done. It shows that he has difficulty at paying attention to task. He wonders off into exploring after a few seconds. He attempts to stand up and move around or would mess the work given. After a few seconds into the activity, his eyes look around and not towards the task in front of him. Through these observations a graphical analysis was carried out. This graph contains the three areas observed and the percentage the child shows in these areas.



According to the above graph three areas monitored are Fine Motor Skills, Gross Motor Skills and the Expressive Language. Each of these skills was observed in the time span of 10 minutes. The percentage refers to the time the child was able to stay on the task without attempting to move

away. The red columns show the attention span the child had during each of these skills related activities.

Fine Motor Skill -	$\frac{4}{10} \times 100 = 40\%$
Gross Motor Skill -	$\frac{7}{10} \times 100 = 70\%$
Language -	$\frac{5}{10} \times 100 = 50\%$

Noted above, it is seen that the child expresses great interest in gross motor activities as he is able to successfully perform them. His attention too is sustained and enjoys the tasks. In activities related to language it was observed that the child has a keen interest as well as is able to answer simple questions and participate in the activities. Due to this the attention too is retained and he enjoys doing these activities. When analyzing the Fine Motor Skill area, a lack is seen. During observation it was noted that he finds it difficult to do the activities. Even when modeled he still finds it hard. His fine motor skills lack development which in turn he is unable to sit and work on daily task, rather prefers to move about. Keeping these aspects in mind, in order to help the child, gain more attention as well as to develop the skill he lacks, this research was carried out. This research would focus on increasing the attention span by developing the fine motor skills.

In order to identify the existing attention span of the child, seven different activities were used.

- Activity 1 – Buttons into the bottle filled with water

In this activity Peter found it difficult to hold a button with the pincer grip as well as to turn the button according to the gap on the lid so as to insert. After the attempt to insert one button, Peter started to look around the room and attempted to stand up. He was able to stay on the task with persuasion for around 3 minutes.

- Activity 2 – Pegs to Pick rubber

Grasping of the peg was a difficult task for him. The concept to add pressure and press the peg was hard. Due to this, his attention was very low.

- Activity 3 – Finger Painting

The concept to use only one finger to dip and get paint was a hard task. He found it hard to separate fingers and control the use of one. Due to this he caused a mess on the work table and wanted to move away from the work space.

- Activity 4 – Push Fingers

He found it hard to independently do the task and so he wanted to get up and move around when one finger was pushed together and that was achieved.

- Activity 5- Threading Buttons

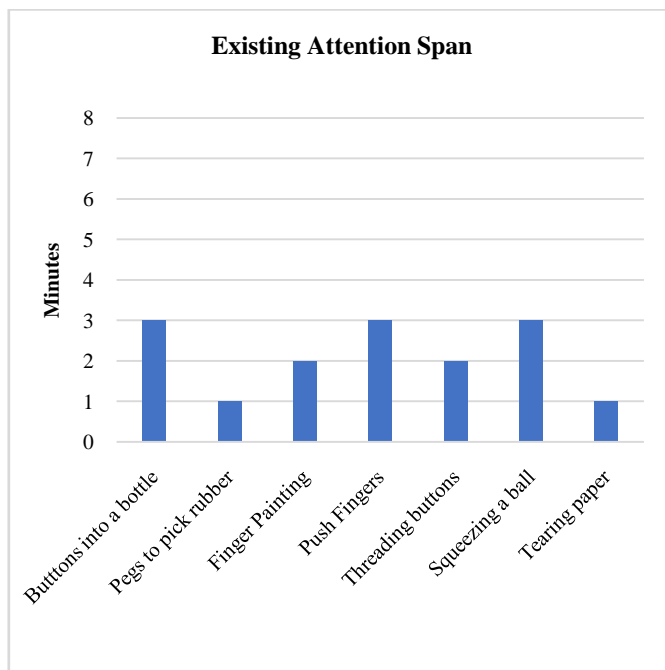
Holding a button as well as holding the thread from the other hand and attempting to insert the button through was a hard task. Eye hand coordination was lacking and so he didn't show any interest in continuing the activity. He also started talking about various other items around him. For about 2 minutes he attempted on the task and then didn't continue to pay any attention afterwards.

- Activity 6 – Squeezing a Ball

He enjoyed the activity as it was combined with songs as well the researcher did the activity of adding pressure to the ball. When asked to independently work on the task he didn't want to do and left the ball and stood up to go to another activity.

- Activity 7 – Tearing Newspaper

He found it hard to pull the pieces of paper apart. He attempted to use his mouth and when that too failed, he threw the paper and didn't want to do the task.



Looking at the above-mentioned chart, he is able to stay on the activity for an approximate time of 2-3 minutes. Looking at each activity, it shows that he was not able to pay attention fully on to the task rather when found it difficult; his attempt was to move away from the task. The activities were all based on fine motor skills and he found them very difficult. His fine motor skills were not age appropriate and were not stronger to perform the required tasks. He found the simplest tasks such as picking up a button to insert to the bottle harder to perform. During these activities he has shown minimum attention to the task. Due to this, activities were not completed or their objectives were not met.

*Researchers Reflections*

While working on the above activities, it was noted that as he found it difficult to coordinate the required fine motor muscles to perform the task, his attention was very low. He attempted to move away from the task by either looking around, speaking or standing up from his seat. To make these activities fun, each activity needs to be combined either with a song or a purpose for the child.

*Objective No 2: Planning and implementing an Intervention to increase attention span of a child with development delay.*

For this action research the strategy that is used is the Development of Fine Motor Skills. Fine Motor skills are very precise and definite. The focus is on the small finger muscles. According to the data collected it was noted that the child experiences great lack in two major areas, which are fine motor skills and attention. When looking at the seven activities mentioned in objective 1, each of these activities show the difficulty the child found in achieving the task. He experienced great difficulty in the fine motor areas. In Activity 1, he found it hard to hold the button and insert through the gap on the lid. In Activity 2, he found it difficult to press the peg and pick a rubber. In Activity 3, he found it hard to fold the other fingers and only use one finger to paint. In Activity 4, he found it hard to push finger to finger. In Activity 5, he was not able to hold the lace and thread the button through it. In Activity 6, pulling pieces apart from the play dough was a hard task. In Activity 7, he found it hard to tear a piece of paper into pieces. It clearly shows that since the child had difficulty in fine motor skills, the attention on the task too was very less. Keeping these aspects in mind, an intervention was planned and implemented.

Eighteen days of work was planned. One hour each day was targeted with ten different activities. These activities focused on developing fine motor skills which in turn would help increase the child's attention span. The previous mentioned seven activities were continuously used with further intervention. In order to further help develop his fine motor skill three more activities were incorporated.

*Activities that focused on Developing Fine Motor Skills as well as Increasing Attention Span*

- Activity 1 – Buttons into the bottle filled with water

To increase an interest in the activity, his favourite coloured buttons (pink) was incorporated. Using physical prompting he was helped to pick the button. Gradually he achieved this skill. Verbal prompting too was used but gradually reduced from saying "look there are more buttons" to name only "Peter" to help work independently. The increase of the number of buttons to insert helped to increase the attention span.

- Activity 2 – Pegs to Pick rubber

As it was hard for him to press the peg, physical prompting was used to help add pressure on the peg so as to open it. The

opening of the peg was sustained till the rubber was picked and matched. Gradually the number of rubbers to match was increased until 5 sets. In this activity too, at the beginning, his favourite colour rubber and peg (pink) was used.

- Activity 3 – Finger Painting

In order to help fold all fingers and use only one finger to paint, physical prompting was used. One picture and one colour were used. Verbal prompting was used to help stay focused on task. Gradually physical prompting was removed and he was able to paint using one finger independently. When this was achieved another picture to paint was introduced. He enjoyed painting and so used two colours for the two different pictures.

- Activity 4 – Push Fingers

With the researcher this activity was done. Thumb to thumb was kept together and pressed. This was done to help strengthen his muscles. Singing songs while doing the activity helped him stay on the task. As one finger was achieved then the next finger was introduced. Gradually I molded and he was able to follow along. In this manner all 5 fingers were introduced.

- Activity 5- Threading Buttons

As he found threading buttons to be difficult, the concept of removing the buttons was introduced. Here the boy had to remove the buttons that were already threaded. He had to hold the button and pull it across the lace to remove. In order to achieve this physical prompting was used. Gradually one button at a time was used to help insert and then remove all of them. Increasing the number of buttons helped to increase the attention span.

- Activity 6 – Squeezing a Ball

Along with the researcher the child was helped to add pressure onto the ball and squeeze it. While doing this activity songs were sung. After a few sessions, I molded the activity and he followed along and we counted as to how many times we can squeeze tightly the ball.

- Activity 7 – Tearing Newspaper

He found it hard to tear paper. To help the child, a small tear was made and given. This encouraged him to continue to tear paper. When he was able to tear into pieces, he was encouraged to paste

on a paper the torn pieces. In this manner he was able to show the others his work. This encouraged him as well as motivated him to work with the activity.

Researcher's Reflections

In the above activities, physical and verbal prompting was used to help the child achieve the task. Gradually a reduction is seen in the use of physical prompting and at certain instances it was stopped. The child had achieved the required fine motor skill. Verbal prompting too was reduced in stages.

The child’s interest was considered and the intervention was done according to the required interest. This greatly helped the child stay on task and express joy in the activity.

Activities that focus on Developing Fine Motor Skills

- Activity 8 – Play Dough (flour)

This activity focuses on strengthening the fine motor muscles. So, the child was encouraged to dig his fingers into the made dough and pull out pieces of dough. He was also gradually encouraged to make a ball or rotti for his mom. He enjoyed this activity very much.

- Activity 9 – Magic Sand

His favourite coloured sand (pink) was used. By giving breaks in between he was gradually encouraged to make moulds. This helped him to follow the instructions given as well as strengthen his fine motor muscles as he picks sand and adds it to the mould.

- Activity 10 – Squeezing Coconut Scrape

Using physical prompting helped squeeze the scrapes and keep separate. He found this hard but gradually he was able to achieve this when motivated to squeeze and give the coconut milk for his mom to cook. This activity strengthens all five finger and palm muscles.

- Activity 11 – Pre- Writing skills

Using physical prompting he was helped to hold a pencil and do the required worksheet. At the start he found it difficult so many times this activity was not proceeded with as he does not express a desire to work with pencil and paper. When his fine motor muscles did get strengthened he was given simple worksheets with matching pictures. Vertical and slant lines were used. He was firstly asked to only point to the matching picture and gradually draw a line with help. A minimum of 3 pictures were given at the start and then 5 was introduced.

*Researcher’s Reflections*

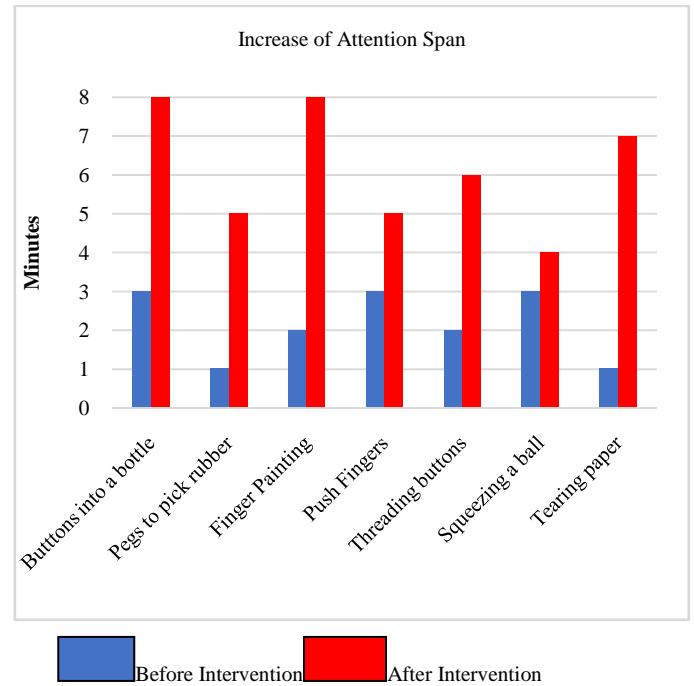
These activities focused on developing the fine motor muscles. As the child enjoys outdoor tasks, he was given to work out with fun filled activities. The three activities were enjoyed and gradually he was able to achieve them independently. His fine motor muscles were strengthened. Through these activities too he was able to follow instructions and attempt to do what was required.

*Objective No 3: To identify the Impact of the Intervention*

The third objective is to identify the Impact of the Intervention. The impact of the research helps identify the strength and weaknesses and helps analyze if the intervention carried out was a success or not. In this action research too, through two graphs the impact could be identified.

After eighteen hours of work with the child and the various activities done to progress on increase of attention span, the following is an analysis done using the monitored data

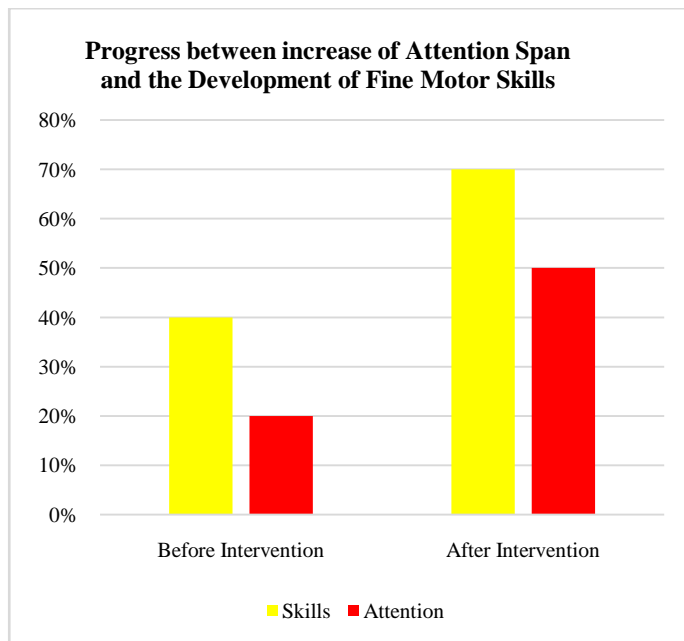
collected.



Looking at the graph above, there is a clear increase of attention the child has achieved. In each of the activities a clear increase to stay on task is seen. An Approximate time of 7 to 8 minutes he is able to stay on one task. His focus was sustained and gradually verbal prompting too was reduced. He is now able to work independently on a task for approximately 7 to 8 minutes. Through this analysis it could be noted that the strategy used in order to increase the child’s attention span did prove to be a success.

His fine motor skill too had shown great improvement. In Activity 1, he is able to pick the button independently and slip it through the lid. In Activity 2, he is able to add pressure onto the peg and press to open it. In Activity 3, he is able to fold the fingers and open out only the required finger to paint. In Activity 4, he is able to follow instructions and watch when it is modeled and push the appropriate fingers independently. In Activity 5, he is now able to remove as well as hold the lace and thread a button independently. In Activity 6, he is able to add pressure on to a ball and squeeze it. In Activity 7, he is able to tear pieces of paper with less physical prompting and enjoys doing the activity. Development of fine motor skills is also clearly evident when a child is able to hold a pencil firmly and do a few worksheets. The progress gained in this regard is attached in Annexure

6. It shows the firm grip the child was able to achieve as well as do the required task using this ability. The following graph clearly shows the relationship between fine motor skills and attention span.



Looking at the above graph it is clear to see an increase in fine motor skills and the attention span. Before Intervention the child showed 40% of fine motor skill development which means with persuasion, he was able to stay on task for an approximate of 4 minutes while paying attention on these tasks was observed to be only 20%. After the Intervention he is able to stay on task for an approximate time of 7 minutes, as well as he is able to pay attention to these activities 50%. When the child works on the task he can do so with less intervention and work independently. We see a clear increase in the development of the fine motor skill has in turn helped the child show great focus during these activities.

#### IV. CONCLUSIONS

*Objective No 1: Identify the existing attention span of a child with development delay.*

- As the child is aged 5years and 1 month, according to the milestone chart it is expected that the child should have developed his basic fine motor skills to an extent. By looking through the Milestone Chart it clearly shows that he lacks this area of development.
- While working with the child it became clearer the less attention span the child has. He is able to stay on task for an approximate of 2 or 3 minutes and attempts to stand up and move around.
- When working on fine motor skill-based tasks, he expresses no willingness or interest in these activities. Rather he enjoys gross motor and language-based activities.

*Objective No 2: Planning and implementing an Intervention to increase attention span of a child with development delay.*

- Through this stage it became clear that it is of great importance to develop the child's interest. All activities should be enjoyed by the child.

- The activities should be tailored to suit the child's likes and dislikes.
- To increase attention span, using the same activities which was used to create an interest could be used and gradually increase the difficulty level step by step. Through this many changes would not be taking place.

*Objective No 3: To identify the Impact of the Intervention*

- A clear relationship between the attention span and development of fine motor skills was seen.
- As Fine Motor Skills are definite and precise, developing this skill is necessary. By targeting this achievement, in turn he was able to develop in paying attention to task.
- Through this action research it was concluded that by developing fine motor skills of a child, it is possible to increase the attention span.

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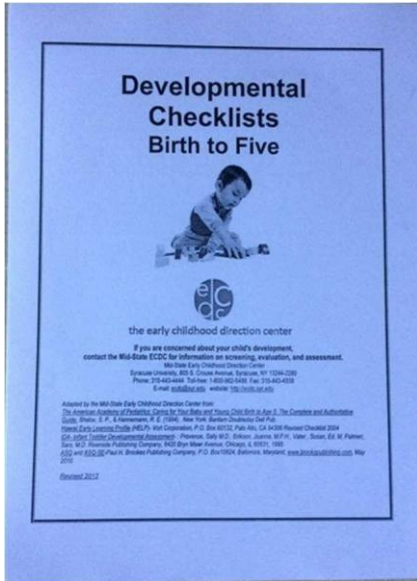
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Annexure – 1

Milestone Chart



**DEVELOPMENTAL CHECKLIST - 1 TO 3 MONTHS**

CHILD'S NAME: Ashanth Pasiker  
 DATE OF BIRTH: 25/12/2015  
 PARENT OR GUARDIAN: VidyaLini Pasiker

MILESTONES	DATE OBSERVED
<b>MOTOR</b>	
✓ Holds held of approximately (1-2 mos.)	X
✓ Brings hands towards center of body when lying on back (1-2 mos.)	X
✓ Raises head and chest when lying on stomach (2 mos.)	X
✓ Supports upper body with arms when lying on stomach (2 mos.)	X
✓ Stretches legs out when lying on stomach or back (2-3 mos.)	X
✓ Turns and shakes hands (2-3 mos.)	X
✓ Pushes down on his legs when his feet are placed on firm surface (2 mos.)	X
✓ Occasionally rolls from stomach to back (2 mos.)	X
<b>COGNITIVE</b>	
✓ Responds to voice (i.e. turn to, wiggle, heads) (1-1 mos.)	✓
✓ Watches face intently (2-3 mos.)	✓
✓ Follows moving objects (2 mos.)	✓
✓ Recognizes familiar objects and people at a distance (2 mos.)	✓
✓ Starts using hands and eyes in coordination (2 mos.)	✓
<b>LANGUAGE</b>	
✓ Makes sucking sounds (1-2 mos.)	X
✓ Smiles at the source of noise (2-3 mos.)	X
✓ Cooing noises, vocal play (gurgles) (2 mos.)	X
✓ Attempts to babble (1-3 mos.)	X
✓ Starts to babble (1-3 mos.)	X
<b>SOCIAL/EMOTIONAL</b>	
✓ Makes eye contact (1-3 mos.)	✓
✓ Begins to develop a social smile (1-4 mos.)	✓
✓ Enjoys playing with other people and may cry when playing stops (2-3 mos.)	✓
✓ Becomes more communicative and expressive with face and body (2-3 mos.)	X

*Handwritten notes: 'achieved at 6 months' next to Motor milestones, '3 months' next to Language milestones.*

**DEVELOPMENTAL RED FLAGS (1 TO 3 MONTHS)**

- Doesn't seem to respond to loud noises
- Doesn't follow moving objects with eyes by 2 to 3 months
- Doesn't smile at the sound of your voice by 2 months
- Doesn't grasp and hold objects by 2 months
- Doesn't reach for people by 2 months
- Cannot support head well at 3 months
- Doesn't reach for and grasp toys by 3 to 4 months
- Doesn't bring objects to mouth by 4 months
- Doesn't push down with legs when feet are placed on a firm surface by 4 months
- Has trouble moving one or both eyes in all directions
- Crosses eyes most of the time (occasional crossing of the eyes is normal in these first months)

COMMENTS:

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**DEVELOPMENTAL CHECKLIST - 4 TO 7 MONTHS**

CHILD'S NAME: \_\_\_\_\_  
 DATE OF BIRTH: 25/12/2015  
 PARENT OR GUARDIAN: \_\_\_\_\_

MILESTONES	DATE OBSERVED
<b>MOTOR</b>	
✓ Pulls up on extended arms (4 mos.)	X
✓ Pulls up sitting on his hands (4 mos.)	X
✓ Sits with support of his hands (4-6 mos.)	X
✓ Sits unsupported for short periods (4-6 mos.)	X
✓ Supports whole weight on legs (5-7 mos.)	X
✓ Grasps feet (5 mos.)	X
✓ Transfers objects from hand to hand (5-7 mos.)	X
✓ Starts using grasp (and pinch) (5 mos.)	X
✓ Reaches/rolls from stomach to back and back to stomach (5 mos.)	X
<b>COGNITIVE</b>	
✓ Plays peek-a-boo (4-7 mos.)	X
✓ Looks for a family member or when named (4-7 mos.)	X
✓ Explores with hands and mouth (4-7 mos.)	X
✓ Tracks moving objects with eyes (4-7 mos.)	X
✓ Finds partially hidden objects (5-7 mos.)	X
✓ Grasps objects dangling in front of him (5-6 mos.)	X
✓ Looks for fallen toys (5-7 mos.)	X
<b>LANGUAGE</b>	
✓ Sings and squeals out loud (4-7 mos.)	X
✓ Distinguishes emotions by tone of voice (4-7 mos.)	X
✓ Responds to sound by making sounds (4-6 mos.)	X
✓ Responds to spoken "bye-bye" by waving (4-7 mos.)	X
✓ Uses voice to express joy and displeasure (4-6 mos.)	X
✓ Looks or turns toward sounds (5-6 mos.)	X
✓ Imitates repetition begins (5-7 mos.)	X
<b>SOCIAL/EMOTIONAL</b>	
✓ Enjoys vocal play (4-7 mos.)	X
✓ Interested in mirror images (5-7 mos.)	X
✓ Can calm down with 1/2 hour when upset (5 mos.)	X
✓ Responds to other people's expressions of emotion (4-7 mos.)	X

*Handwritten notes: 'achieved at 10 months' next to Motor milestones, 'achieved at 1 year' next to Language milestones.*

**DEVELOPMENTAL RED FLAGS (4 TO 7 MONTHS)**

- C Seems very stiff, tight muscles
- C Seems very floppy, like a rag doll
- F Head still flops back when body is pulled to sitting position (by 5 months still exhibits head lag)
- C Shows no affection for the person who cares for them
- L Doesn't seem to enjoy being around people
- L One or both eyes consistently turn in or out
- F Persistent tearing, eye drainage, or sensitivity to light
- C Does not respond to sounds around them
- C Has difficulty getting objects to mouth
- C Does not turn head to locate sounds by 4 months
- F Doesn't roll over (stomach to back) by 6 months
- C Cannot sit with help by 6 months (not by themselves)
- C Does not laugh or make squealing sounds by 5 months
- C Does not actively reach for objects by 6 months
- C Does not follow objects with both eyes
- C Does not bear some weight on legs by 5 months
- C Has difficulty calming self, cries for long periods of time

**COMMENTS:**

• most of the time cries for a long period of time.

• could not move around by himself.

Developmental Checklist Birth to Five  
Adapted and revised by the Mid-State Early Childhood Director Center - 2012

**DEVELOPMENTAL CHECKLIST - 8 TO 12 MONTHS**

CHILD'S NAME: \_\_\_\_\_

DATE OF BIRTH: 25/12/2012

PARENT OR GUARDIAN: \_\_\_\_\_

MIILESTONES	DATE OBSERVED
<b>GROSS MOTOR</b>	
✓ Crawls forward on belly (8-9 mos.)	X
✓ Assumes hand and knee position (9-9 mos.)	X
✓ Gets to sitting position without assistance (9-10 mos.)	X
✓ Pulls self up to standing position at furniture (9-10 mos.)	X
✓ Creeps on hands and knees (9 mos.)	X
✓ Gets from sitting to crawling or prone (lying on stomach) position (9-10 mos.)	X
✓ Walks holding on to furniture (10-13 mos.)	X
✓ Stands momentarily without support (11-13 mos.)	X
✓ May walk two or three steps without support (11-13 mos.)	X
<b>FINE MOTOR</b>	
✓ Uses pincer grasp (grasp using thumb and index finger) (7-10 mos.)	X
✓ Bangs two one-inch tubes together (9-12 mos.)	X
✓ Pokes with index finger (9-12 mos.)	X
✓ Puts objects into container (9-12 mos.)	X
✓ Takes objects out of container (10-12 mos.)	X
✓ Tries to imitate scribbling (10-12 mos.)	X
<b>COGNITIVE</b>	
✓ Looks at correct picture when image is named (9-9 mos.)	X
✓ Explores objects in many different ways (shaking, banging, throwing, dropping) (9-10 mos.)	X
✓ Enjoys looking at pictures in books (9-12 mos.)	X
✓ Imitates gestures (9-12 mos.)	X
✓ Engages in simple games of Peek-a-Boo, Pat-a-Cake, or rolling ball to another (9-12 mos.)	X
✓ Finds hidden objects easily (10-12 mos.)	X
<b>LANGUAGE</b>	
✓ Babbles "dada" and "mama" (7-8 mos.)	✓
✓ Babbles with inflection (7-8 mos.)	✓
✓ Says "dada" and "mama" for specific person (8-10 mos.)	✓
✓ Responds to "no" by briefly stopping activity and noticing adult (9-12 mos.)	✓
✓ Responds to simple verbal requests, such as "Give me" (9-14 mos.)	✓
✓ Makes simple gestures such as shaking head for "no" (12 mos.)	✓
✓ Uses exclamations such as "ah-oh" (12 mos.)	X

Developmental Checklist Birth to Five  
Adapted and revised by the Mid-State Early Childhood Director Center - 2012

achieved at 2 1/2 years

achieved at 4 1/2 years

**SELF-HELP**

	DATE OBSERVED
✓ Finger feeds himself (8-12 mos.)	X
✓ Extends arm or leg to help when being dressed (9-12 mos.)	X
✓ May hold spoon when feeding (9-12 mos.)	X

**SOCIALEMOTIONAL**

	DATE OBSERVED
✓ Shy or anxious with strangers (8-12 mos.)	X
✓ Cries when mother or father leaves (8-12 mos.)	X
✓ Enjoys imitating people in his play (10-12 mos.)	X
✓ Shows specific preferences for certain people and toys (8-12 mos.)	X
✓ Prefers mother and/or regular care provider over all others (8-12 mos.)	X
✓ Repeats sounds or gestures for attention (10-12 mos.)	X
✓ May test parents at bed time (9-12 mos.)	X

**DEVELOPMENTAL RED FLAGS (8 TO 12 MONTHS)**

- C Does not crawl
- C Drags one side of body while crawling (for over one month)
- C Cannot stand when supported
- L Does not search for objects that are hidden (10-12 mos.)
- L Says no single words ("mama" or "dada")
- C Does not learn to use gestures such as waving or shaking head
- C Does not sit steadily by 10 months
- L Does not react to new environments and people
- F Does not seek out caregiver when stressed
- F Does not show interest in "peek-a-boo" or "pat-a-cake" by 8 mos.
- C Does not babble by 8 mos. ("bada," "baba," "mama")

**COMMENTS:**

Developmental Checklist Birth to Five  
Adapted and revised by the Mid-State Early Childhood Director Center - 2012

After 1 year

**DEVELOPMENTAL CHECKLIST - 12 TO 24 MONTHS**

CHILD'S NAME: \_\_\_\_\_

DATE OF BIRTH: 25/12/2012

PARENT OR GUARDIAN: \_\_\_\_\_

MIILESTONES	DATE OBSERVED
<b>GROSS MOTOR</b>	
✓ Walks alone (12-16 mos.)	X
✓ Pulls toys behind him while walking (13-16 mos.)	X
✓ Carries large toy or several toys while walking (12-15 mos.)	X
✓ Begins to run stiffly (16-18 mos.)	X
✓ Walks into ball (18-24 mos.)	X
✓ Climbs onto and down from furniture unsupported (18-24 mos.)	X
✓ Walks up and down stairs holding on to support (18-24 mos.)	X
<b>FINE MOTOR</b>	
✓ Scribbles spontaneously (14-18 mos.)	X
✓ Turns over container to pour out contents (12-18 mos.)	X
✓ Builds tower of four blocks or more (20-24 mos.)	X
✓ Completes simple knobbed wooden puzzles of 3 to 4 pieces (21-24 mos.)	X
<b>LANGUAGE</b>	
✓ Says "no" with meaning (13-15 mos.)	✓
✓ Follows simple, one-step instructions (14-18 mos.)	✓
✓ Says several single words (15-18 mos.)	✓
✓ Recognizes names of familiar people, objects, and body parts (18-24 mos.)	✓
✓ Points to object or picture when it's named for them (18-24 mos.)	✓
✓ Repeats words overheard in conversations (16-18 mos.)	✓
✓ Uses two-word sentences (18-24 mos.)	✓
<b>COGNITIVE</b>	
✓ Finds objects even when hidden under 2 or 3 covers (13-15 mos.)	X
✓ Will listen to short story book with pictures (15-20 mos.)	X
✓ Identifies one body part (15-24 mos.)	X
✓ Begins to sort shapes and colors (20-24 mos.)	X
✓ Begins make-believe play (20-24 mos.)	X

Developmental Checklist Birth to Five  
Adapted and revised by the Mid-State Early Childhood Director Center - 2012

achieved at 2 1/2 years

achieved at 3 years

achieved at 2 1/2 years



**SELF-HELP**

- Can feed self with spoon without spilling
- Washes and dries hands and face
- Can do simple household tasks (help set the table)
- Can put on simple clothing items, with help for button, zipper, shoelace (jacket, pants, shoes)
- Can run a brush or comb through own hair

**SOCIAL/EMOTIONAL**

- Interested in new experiences
- Cooperates/plays with other children
- Plays "mom" or "dad"
- More inventive in fantasy play
- Can stay on topic during conversations
- More independent
- Plays simple games with simple rules
- Begins to share toys with other children
- Often cannot distinguish between fantasy and reality
- May have imaginary friends or see monsters

**DEVELOPMENTAL RED FLAGS (3 TO 4 YEARS)**

- Cannot jump in place
- Cannot ride a tricycle
- Cannot grasp a crayon between thumb and fingers
- Has difficulty scribbling
- Cannot copy a circle
- Cannot stack 4 blocks
- Still clings or cries when parents leave him
- Shows no interest in interactive games
- Ignores other children
- Doesn't respond to people outside the family
- Doesn't engage in fantasy play
- Resists dressing, sleeping, using the toilet
- Lashes out without any self-control when angry or upset
- Doesn't use sentences of more than three words
- Doesn't use "me" or "you" appropriately

**COMMENTS:**

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Developmental Checklist: Birth to Five  
Adapted and revised by the M&D State Early Childhood Division Center, 2012

**DEVELOPMENTAL CHECKLIST - 4 TO 5 YEARS**

CHILD'S NAME: \_\_\_\_\_

DATE OF BIRTH: 25/12/2012

PARENT OR GUARDIAN: \_\_\_\_\_

MILESTONES	DATE OBSERVED
<b>GROSS MOTOR</b>	
<input checked="" type="checkbox"/> Stands on one foot for 10 seconds or longer	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hops, somersaults	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Swings, climbs	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> May be able to skip	<input checked="" type="checkbox"/>
<b>FINE MOTOR</b>	
<input checked="" type="checkbox"/> Copies triangle and other geometric patterns	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Draws person with body	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Prints some letters	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Dresses and undresses without assistance	<input checked="" type="checkbox"/>
<b>LANGUAGE</b>	
<input checked="" type="checkbox"/> Recalls parts of a story	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Speaks sentences of more than 5 words	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Uses future tense	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Tells longer stories	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Says name and address	<input checked="" type="checkbox"/>
<b>COGNITIVE</b>	
<input checked="" type="checkbox"/> Can count 10 or more objects	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Correctly names at least 4 colors	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Works in small groups for 5-10 minutes	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Better understands the concept of time	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Knows about things used every day in the home (money, food, etc.)	<input checked="" type="checkbox"/>
<b>SELF-HELP</b>	
<input checked="" type="checkbox"/> Uses fork, spoon independently	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Can chew with lips closed	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Goes to the bathroom independently, with reminders	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Undresses independently, may be able to unbutton and unzip	<input checked="" type="checkbox"/>

Developmental Checklist: Birth to Five  
Adapted and revised by the M&D State Early Childhood Division Center, 2012

**SOCIAL/EMOTIONAL**

- Wants to please
- Prefers to be with friends
- More likely to agree to rules
- Likes to sing, dance, and act
- Shows more independence

**DEVELOPMENTAL RED FLAGS (4 TO 5 YEARS)**

- Exhibits extremely aggressive, hostile or timid behavior
- Is unable to separate from parents
- Is easily distracted and unable to concentrate on any single activity for more than 5 minutes
- Shows little interest in playing with other children
- Refuses to respond to people in general
- Rarely uses fantasy or imitation in play
- Seems unhappy or sad much of the time
- Anxious or seems aloof with other children and adults
- Does not express a wide range of emotions
- Has trouble eating, sleeping or using the toilet
- Cannot differentiate between fantasy and reality
- Seems unusually passive
- Cannot understand prepositions ("put the cup on the table", "get the ball under the couch")
- Cannot follow 2-part commands ("pick up the toy and put it on the shelf")
- Cannot give his first and last name
- Does not use plurals or past tense
- Cannot build a tower of 8 to 9 blocks
- Has trouble copying with folded paper
- Has trouble taking off clothing
- Unable to brush teeth or wash and dry hands

**COMMENTS:**

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Developmental Checklist: Birth to Five  
Adapted and revised by the M&D State Early Childhood Division Center, 2012

## **Annexure – 2**

### ***Observation (General)***

Day: 1

Time: 30 minutes

Area observed on: General observation of the child's activity  
Setting: Classroom (one on one session)

#### Observation Notes:

As I entered to the classroom, he expressed happiness. He welcomed me with a big smile and showed me around the place. Then he went towards a box and took out all the toys and put it on the floor. He took the toy- bus and dragged it around the room. As he brought the bus closer to me, I asked him about it and he showed me the moving wheels by rotating it. Next, he was asked to come to start his work at the desk. To this he did go but leaving the toy behind. A set of rings were given to stack one on top of the other. This activity he took and threw on the floor. The teacher asked him to arrange it and he refused. When spoken to in a firm voice he arranged the rings on to the table.

Next the adult gave him a piece of paper with a picture on it to colour. While colouring I noticed he found it difficult to grip on to the pencil using the tripod grasp and he gripped it with all 5 fingers. He ended up scribbling on the picture and stayed on task approximately 1.30 minutes. He stood up and walked around the room looking at other items in the room.

Next the adult read a story with him. When the first two pages were read, he listened carefully but later on he kept turning the pages over and over again even before the pages were read. This activity lasted for around 3.5 minutes.

The next activity was to play with the magic sand. He was delighted to work on this. So, he sat with the adult and enjoyed playing with sand. When asked to make a mould he attempted but spilt all sand onto the floor and made a mess. When the adult made a mould he broke it and refused to say sorry. When asked to help clean the mess created, he cried and was taken to calm down.

**Annexure -3*****Observation (Participatory)***

Day: 2

Time: 20 minutes

Area observed on: Fine motor skills,  
 Attention Setting: Classroom (one on  
 one session) Observation Notes:

As this is a participatory observation, I worked with the child. This observation focused on observing his attention span and fine motor skills. The following activities were done to assess the above two areas.

Activity	Aim	Time	Feedback/Results
Threading buttons (10 buttons and lace)	Fine motor skill	Allocated Time – 4 minutes	At the beginning I modeled the threading of one button. I gave it to him to do it. He found it hard to positing the button to the lace as well as to send the lace through the button. With help he did two buttons but didn't want to continue.
	Attention	Child stayed on task – 2 minutes	He said “enough” and wanted to get up from his seat.
Pencil- Colouring a picture (square)	Fine motor skill	Allocated Time – 3 minutes	He took pink colour and held it with all 5 fingers. He scribbled on the whole paper
	Attention	Child stayed on task – 0.5 minutes	and gave the paper and pencil to me. He didn't want to continue.
Buttons into a bottle filled with water	Fine motor skill	Allocated Time – 3 minutes	I modeled one button. He was fascinated about the activity and watched the button go down through the water. He tried to pick another button but it was hard. With help he was able to insert 2 buttons.
	Attention	Child stayed on task – 1.5 minute	He said “enough” and wanted to get up from his seat.

**Reflections**

According to the above the chart, it is clear that Peter has difficulty in his fine motor skills. Also, his attention span was less and he needed to be verbally prompted to be on task.

Observation – (Participatory)

Day: 3

Time: 20 minutes

Area observed on: Language, Gross Motor

Skills Setting: Classroom (one on one session) Observation Notes:

As this is a participatory observation, I worked with the child. This observation focused on observing his Language, Gross Motor Skills. The following activities were done to assess the above two areas.

Activity	Aim	Time	Feedback/Results
Run to Target	Gross Motor Skill	Allocated Time – 2.5 minutes  Child stayed on task – 2 minutes	Enjoyed and loved to run around.
Throw a ball to target	Gross Motor Skill	Allocated Time – 2.5 minutes  Child stayed on task – 1.5 minute	Aiming at target was difficult. With help he was able to do the task.
Catch a Ball	Gross Motor Skill	Allocated Time – 2.5 minutes  Child stayed on task – 1.5 minute	Attempted but was not able to gage the distance to keep hands to catch the ball.
Jump on the Trampoline	Gross Motor Skill	Allocated Time – 2.5 minutes  Child stayed on task – 2 minutes	Stood on the trampoline but needed to be help with hand so that he can jump.
Story time	Language – Expressive	Allocated Time – 5 minutes Child stayed on task – 3 minutes	He flipped through the pages. When simple questions were asked, he was able to give a few answers. E.g.: “What is the boy doing?” - “playing ball”.
Singing Songs	Language – Expressive	Allocated Time – 5 minutes Child stayed on task – 2 minutes	Started to sing along but half way through the song he would stop and want to sing another song.

Reflections

According to the above the chart, it shows that Peter shows keen interest in outdoor activities. Here too at each activity his attention was low. For example, the manner in which he skips to the next song without finishing what was being sung. He is able to speak and express his needs. He is also able to answer simple questions from the picture. He is active boy but he does display gross motor difficulties. Such as being unable to jump or catch a ball. Here too verbal cues were constantly needed to help be on task.



## Annexure -4

*Detailed Action Plan*

Step	Objective	Existing Status	Intervention	Time Period	Expected Outcomes
Buttons into bottle filled with water	Develop fine motor skills  Increase attention	Was not able to hold the button with two fingers and insert through the gap.  Was easily distracted after every inserting of a button. Wanted to get up and move around.	Physically helped to pick button and helped to insert through the gap.  <ul style="list-style-type: none"> <li>Used verbal cues such as “next button”, “more buttons”, “name only”.</li> <li>Used mostly buttons of his favorite colour (pink).</li> <li>Increased the number of buttons.</li> </ul>	7 days  18 days	The child will be able to hold the button with pincer grip and insert through the gap.  The child will be able to pay attention to task for approximately 8 minutes.
Pegs to pick rubber	To hold and press the peg using 5 fingers.  Increase attention	Grasp of the peg was difficult.  As he found it difficult to grasp the peg, he didn't pay attention to the task.	Used physical prompting and helped to press the peg.  <ul style="list-style-type: none"> <li>To encourage to do the activity, his favorite colour was used (pink)- pink peg and pink rubber.</li> </ul>	13 days  18 days	The child will be able to grasp firmly the peg and pick rubber.  The child will be able to pay attention to task for approximately 5 minutes.
			<ul style="list-style-type: none"> <li>For the start it was only one rubber but later increased gradually to work with 5 different colours to match.</li> </ul>		
Finger Painting	Awareness of each finger and strengthening of each finger muscle.  Awareness of each finger and strengthening of each	Dipping one finger in paint was a bit hard. (index finger)  Using two separate fingers was difficult. (index and thumb)	<ul style="list-style-type: none"> <li>One picture and one colour was used.</li> <li>Physical prompting and verbal prompting was used to help develop the skill.</li> <li>Two pictures and two colours.</li> </ul>	8 days  10 days	The child will be able to independently use his finger and dip in paint.  The child will be able to independently use his fingers and dip in paint.



<p>Push Fingers</p>	<p>Awareness of each finger and strengthening of each finger muscle on both hands.</p> <p>Increase of attention</p>	<p>Enjoyed when it was done for him.</p> <p>After one attempt would want to leave and move to an activity.</p>	<p>One finger at a time. Such as thumb to thumb. Only when one finger was achieved then the next finger was used and done together.</p> <p>Repetition of pressing fingers and singing songs.</p>	<p>18 days</p> <p>18 days</p>	<p>The child will be able to independently press each finger against each other.</p> <p>The child will be able to pay attention to task for approximately 5 minutes.</p>
<p>Threading Buttons</p>	<p>Remove buttons from the thread</p> <p>Insert buttons into the thread.</p>	<p>Independent work was a difficult task.</p> <p>Holding the thread and threading a button through was a hard task.</p> <p>Eye hand coordination difficulty.</p>	<ul style="list-style-type: none"> <li>● Used physical and verbal prompting to help stay on task.</li> <li>● Increase the number of buttons to remove from thread.</li> </ul>	<p>7 days</p> <p>11 days</p>	<p>The child will be able to independently remove the buttons from the thread.</p> <p>The child will be able to insert buttons through the thread independently to and extent such as hold the thread and button.</p>

	Increase attention	Found it hard to stay on task.	<ul style="list-style-type: none"> <li>● Insert two buttons and remove all.</li> <li>● Used physical and verbal prompting to help insert the button.</li> <li>● Increase the number of buttons to insert gradually.</li> <li>● Increase of buttons to insert and remove.</li> <li>● Used verbal prompting to help maintain focus.</li> </ul>	18 days	The child will be able to pay attention to task.
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Squeeze a ball	<p>Strengthening finger muscles of both hands.</p> <p>Increase attention</p>	<p>Enjoyed the activity.</p> <p>Enjoyed the activity.</p>	<ul style="list-style-type: none"> <li>● Used physical prompting and helped to add pressure on the ball with both hands.</li> <li>● Sang songs and had fun.</li> </ul>	<p>18 days.</p> <p>18 days</p>	<p>The child will be able to add pressure on the ball independently.</p> <p>The child will be able to stay on task for approximately 5 minutes.</p>
Tearing News paper	<p>Fine motor</p> <p>Increase Attention</p>	<p>Found it hard to tear pieces of newspaper.</p> <p>As the activity was hard, he did not want to work along.</p>	<ul style="list-style-type: none"> <li>● Made a small tear and gave to continue.</li> <li>● Increased the number of pieces to tear and then pasted on the book.</li> </ul>	<p>18 days</p> <p>18 days</p>	<p>The child will be able to tear paper independently.</p> <p>The child will be able to pay attention on task for 8 minutes.</p>

Play dough	Fine motor - Digging fingers into the dough and pulling out pieces	Enjoyed and did the activity with fun.	<ul style="list-style-type: none"> <li>● Flour dough made into a ball.</li> </ul>	5 days	The child will be able to dug his fingers and pull apart pieces of dough.
	Fine motor- Make a shape	Enjoyed this activity but found it hard to mould it into a shape.	<ul style="list-style-type: none"> <li>● Used flour dough and helped to make rotti for dinner(hel ping mom).</li> </ul>	13days	The child will be able to make a shape using the play dough.  The child will be able to pay attention on task for 8 minutes.
	Increase Attention to task.	Was able to pay attention for a few minutes		18 days	
Magic Sand	Fine motor	Enjoyed the activity. Found it hard to make a mould.  Spilt whole sand on the floor and did	<ul style="list-style-type: none"> <li>● Used his favorite coloured sand (pink).</li> <li>● Giving breaks in between</li> </ul>	18 days	The child will be able to make moulds by himself using the magic sand.  The child will be able to pay attention on task for 8 minutes.
	Increase Attention			18 days	

		not work with it.	<p>was able to help him mould at least 2 or 3 shapes.</p> <ul style="list-style-type: none"> <li>● Gradually increasing the moulds to be made.</li> </ul>		
queezi ng coconut scrape	<p>Strengthening of finger muscles.</p> <p>Increase attention</p>	<p>Though loved playing with water-based activities, found it hard to grab the scrape and squeeze it.</p> <p>Spilled all in the garden and refused to work on the activity.</p>	<ul style="list-style-type: none"> <li>● Used physical prompting</li> <li>● Gave small breaks in between and helped squeeze the scrape.</li> <li>● Encourage d to squeeze and give mom to use the coconut</li> </ul>	<p>18 days</p> <p>18 days</p>	<p>The child will be able to squeeze the scrape.</p> <p>The child will be able to pay attention to task for approximately 10 minutes.</p>
			<p>milk for cooking.</p> <ul style="list-style-type: none"> <li>● Used physical prompting</li> </ul>		

**Annexure – 5*****Reflective Journal*****Maintaining a Reflective Journal**

All below activities were conducted throughout the action research from 17/1/2018 to 28/3/2018.

<b>Relevant Step</b>	<b>Details about the completed activities</b>	<b>Persons who were involved with this activity</b>	<b>Reflections about the activity</b>
Buttons into bottle filled with water.	With physical prompting he was helped to insert the button through the gap of the lid. While doing the activity verbal cues such as “next button”, “more buttons” was used. Gradually the verbal cues were reduced to the point where only his name was called to pay attention.	Child and Researcher	At the beginning he didn't like the task but when his favorite colour of buttons was used he enjoyed the activity as well as attempted to work on the task. After the first 7 days he mastered the skill to pick and insert the button.  In order to increase his attention span, the number of buttons too was increased. This did prove to be a success as his attention span increased.  To improve the activity using different shapes and sizes of buttons would be useful and gradually using no verbal cues in order to encourage independent work.
Pegs to pick rubber	With physical prompting he was helped to add pressure onto the peg and press	Child and Researcher	After 13 days of physical prompting he was able to add pressure onto the peg independently and press it.
	it. Gradually a set of 5 coloured rubbers were used to be able to match them.		Though he was able to press and open the peg he found it hard to sustain the peg till the rubber was picked.  To enhance this still and make it more fun a suggestion would be to draw an animal on the peg and sing along.
Finger Painting	With physical prompting he was helped to separate the folding of the required fingers and dip them one at a time for painting. When he was able to achieve one finger gradually the next finger was	Child and Researcher	The first 8 days were targeted on achieving the folding of all fingers and opening out the required finger (thumb).  With physical prompting as well as verbal cues he was able to do the task.  Gradually the opening and dipping in the index finger was introduced. On the 13 <sup>th</sup> session it was amazing to see how independently he worked by folding all fingers and opening out the required one



	<p>used. In this manner two different pictures were given to be painted.</p>		<p>only. The verbal cues continued but were reduced than the earlier times.</p> <p>To further enhance this activity, the other fingers too could be introduced</p> <p>and help strengthen them. using different coloured paint would also attract to work on.</p>
<p>Push Fingers</p>	<p>Using physical prompting the activity was done together with the researcher. Finger based songs were used to help stay on task and make it interesting. Gradually the activity was modeled and the child began to follow along.</p>	<p>Child and Researcher</p>	<p>The first 7 days we worked on one finger each day starting off with thumb, index and middle finger. Afterwards all three fingers were done on the same day repeatedly. Gradually another finger was added and the process continued till all 5 fingers were done each day.</p> <p>On the 13<sup>th</sup> session, I modeled the activity and observed if he was able to follow. He found it difficult but with persuasion and finger-based songs he mastered the skill and was able to independently work on.</p> <p>One suggestion to improve this activity is using other games based with fingers such as “ants walking” could help strengthen the finger muscles.</p>
<p>Threading Buttons</p>	<p>As he showed lack in eye hand coordination, to begin with, he was introduced to remove the buttons from the thread. To perform this task, using physical prompting he</p>	<p>Child and Researcher</p>	<p>The first 7 days the focus was to help him remove the buttons independently.</p> <p>While the researcher held the lace, the boy was encouraged to remove each button. Verbal cues were used to encourage staying on task. He started enjoying the activity. When he was able to remove the buttons independently, inserting of buttons was introduced. He</p>

	<p>was helped to hold the thread and hold the button using the other hand and slowly</p>		<p>found this difficult but with constant prompting he was able to achieve this skill. At time he would insert buttons</p>
	<p>sliding it out. When he was able to remove the buttons independently gradually the concept of inserting a button was introduced.</p>		<p>but refuse to remove all of it and would remove partially. Suggestion to improve this activity would be to change the buttons into different shapes, through this he would be attracted to work more.</p>
<p>Squeezing a ball</p>	<p>This activity was done along with the researcher. He needed to add pressure onto the ball and squeeze it. While doing; songs were sung.</p>	<p>Child and Researcher</p>	<p>He did enjoy this activity by singing along the songs. He was able to hold the ball but adding pressure onto the ball was a hard task. So, with physical prompting and singing of songs, pressure was put on the ball so as to squeeze it using both hands. To do this activity, a colorful ball was used. This helped him stay on task and enjoy the task more. At times a game was made where ball passing was done.</p>
<p>Tearing Paper</p>	<p>Pieces of newspaper were given to tear. Pulling a part, the paper was difficult and so the researcher gave help by tearing a piece and asked to continue. Gradually</p>	<p>Child and Researcher</p>	<p>Different types of paper were given at the start to help tear. Noticing the difficulty, the newspaper was given. Here too it proved hard. Smaller pieces were given but this too was difficult. Next a small piece was torn to start with and given to continue. When he was able to tear in this manner, he was so</p>

	<p>pasting these papers too was introduced.</p>		<p>happy that he wanted to do more. His face shone as soon as he saw for himself the paper was torn by himself.</p>
			<p>From the 13<sup>th</sup> session, he was introduced to pasting these torn pieces on a paper. This delighted him more as now there was a purpose to his task. He did attempt to tear by himself.</p> <p>Suggestion would be to use a colourful newspaper and after tearing, paste in manner to create a story out of it.</p>
<p>Play dough – flour</p>	<p>The focus of this activity is to pay attention to instructions given and follow. Digging his fingers into the flour and pulling it to pieces required fine motor skills. He found this task hard. Gradually he was introduced first make a ball or rotti shape and then pulls to pieces.</p>	<p>Child and Researcher</p>	<p>At first the flour was made into a ball and given to dig his fingers into it and pull pieces. The researcher and the child worked together on the task. At the 6<sup>th</sup> session instruction was given to make the flour into a ball. With physical prompting he was able to do this task.</p> <p>Also, he was asked to make rotti for his mom. This too helped him to be on task and enjoyed doing it.</p> <p>This activity strengthened his fine motor muscles.</p>
<p>Magic Sand</p>	<p>His favourite coloured sand (pink) was used. He was introduced to making moulds with the sand. With physical prompting one mould</p>	<p>Child and Researcher</p>	<p>At the beginning he would take the sand box and spill all on the floor and this creates a great mess in the class. But observing him at that, he enjoyed playing with the sand on the floor. So, for a few days he was allowed to spill all sand on the floor and the researcher too</p>

	<p>was made. In this manner gradually 2/ 3 moulds were introduced and made with help.</p>		<p>played with him. When an item was made, he would break it. On the 4<sup>th</sup> session with physical prompting one mould was made. This was kept hidden so as to not allow breaking. After a few minutes, he was shown the mould he had made and praised more. In this manner gradually 2/ 3 moulds were introduced and made with help. This was done with breaks in between. By this he did not attempt to break it, rather enjoyed working with the activity. 14<sup>th</sup> session onwards he attempted to make moulds by himself and not destroy them.</p> <p>To increase attention, many moulds could be introduced gradually.</p>
<p>queezi ng coconut scrapes</p>	<p>Coconut scrape was put into a bowl and mixed with water. This was found hard as the required muscles of the fingers were not strong enough to hold the scrapes and add pressure. With physical prompting he was helped to squeeze the scrape and keep aside.</p>	<p>Child and Researcher</p>	<p>He found the activity tough. At the beginning he would spill all the scrapes on the floor. But gradually with physical prompting he was able to squeeze the scrapes. To give purpose for the activity, he was asked to squeeze and give the coconut milk to his mom so as to make his favorite food. This motivated him further to work on the task.</p> <p>With gaps in between, he gradually started squeezing the scrapes till 4 times. He also made attempts to do the activity independently.</p> <p>Through this activity his finger muscles were strengthened. He enjoyed working on the activity.</p>
<p>Pre- Writing Skills</p>	<p>Did not want to do the activity. Wanted to get up and go.</p>	<p>Child and Researcher</p>	<p>Did not want to do the activity and attempted to move away from the place.</p> <p>When his finger muscles were stronger this activity was introduced. At the start,</p>

			he was asked to point to the relevant picture. Gradually with physical prompting a line was drawn. In this manner few worksheets were done with three pictures and then five were introduced. Vertical and Horizontal lines were given to match. He was able
			to strengthened his grip and on the pencil and draw firm lines.