

A close-up photograph of children's hands stacking colorful plastic blocks (red, yellow, blue, green) in a pyramid shape. The background is blurred, showing other children and hands.

Brick By Brick

Outcomes Evaluation

A home-based programme designed to strengthen relationships between children and their parents/caregivers

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Conflict of Interest Declaration

Presbyterian Support Northern ran the Brick by Brick Programme and this evaluation report has been conducted by the Presbyterian Support Northern Research & Evaluation Unit.

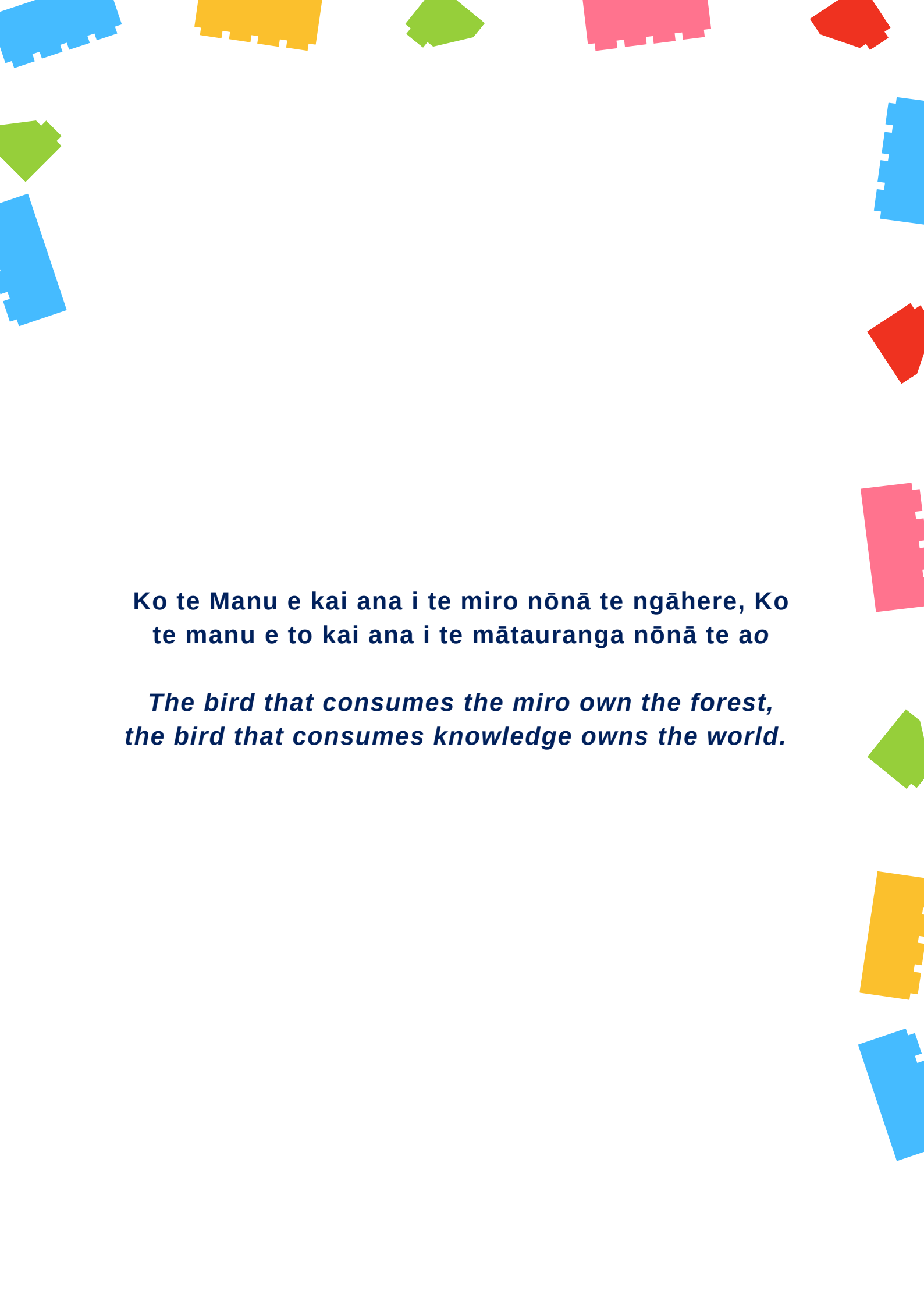
Acknowledgments

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**Ko te Manu e kai ana i te miro nōnā te ngāhere, Ko
te manu e to kai ana i te mātauranga nōnā te ao**

***The bird that consumes the miro own the forest,
the bird that consumes knowledge owns the world.***

Brick By Brick Evaluation Report

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Acronyms and Definitions


SWIS- Social Workers in School

EL- Experiential Learning

MSD- Ministry of Social Development

OT-Oranga Tamariki

Whānau- Whānau speaks to the extended nature of family and therefore includes those who are not necessarily related by blood and those who have passed.





Section 1

Introduction

Introduction

Family Works Northern piloted Brick by Brick, a home-based programme designed to build healthy and sustainable relationships between children and their caregivers. The programme was designed by a Family Works Northern Social Worker in Schools (SWiS) who noticed a number of children and their caregivers were struggling to connect at home. The evidence-based programme was created using the principles of attachment theory and included structured activities that have been shown to improve the relationship between children and their parents/caregivers.

Presbyterian Support Northern's Research & Evaluation Unit carried out an evaluation of the 10-week pilot. The evaluation found the programme met its intended outcomes of improving the relationship between the children and their caregivers. Caregivers reported that by the end of the programme, children were better able to express their feelings, had improved confidence and communication abilities and improvements in their abilities to negotiate problems.

This evaluation has found that Brick by Brick is a promising programme to support children and their caregivers to strengthen their relationship.



Literature Review

Attachment Theory of Childhood Development

Children learn and develop best when they have a strong, loving, positive relationship with their parents, caregivers and those around them. Psychologists have extensively studied the impacts of relationships between caregivers and children - both positive and negative. Attachment Theory is one of the most well-known and widely accepted theories about childhood development and has been pivotal in the design of the Brick by Brick programme.

Attachment theory focuses on the attachments children form in infancy (from birth until after 9 months of age). Children go through distinct phases of attachment in which they develop trust that specific attachment figures will attend to their needs. As children age, they should begin to form strong emotional bonds with other figures in their lives such as grandparents, siblings etc. (Schaffer & Emerson, 1964). There are, for the most part, four patterns of attachment (Lyons-Ruth, 1996):

- **Ambivalent Attachment:** Children become very distressed when a parent leaves. This is thought to be a result of poor parental availability - these children cannot depend on their primary caregiver to be there when they need them.
- **Avoidant Attachment:** Children with an avoidant attachment tend to avoid parents or caregivers, showing no preference between a caregiver and a complete stranger. This attachment style might be a result of abusive or neglectful caregivers. Children who are punished for relying on a caregiver learn to avoid seeking help in the future.
- **Disorganised Attachment:** These children display a confusing mix of behaviour. They often seem disoriented, dazed, or confused. They may avoid or resist the parent. Lack of a clear attachment pattern is likely linked to inconsistent caregiver behaviour. In such cases, parents may serve as both a source of comfort and fear.
- **Secure Attachment:** Children who can depend on their caregivers show distress when separated and joy when reunited. Although the child may be upset, they feel assured that the caregiver will return. When frightened, securely attached children are comfortable seeking reassurance from caregivers. This is the most common attachment style.

Outcomes of Insecure Attachment Styles

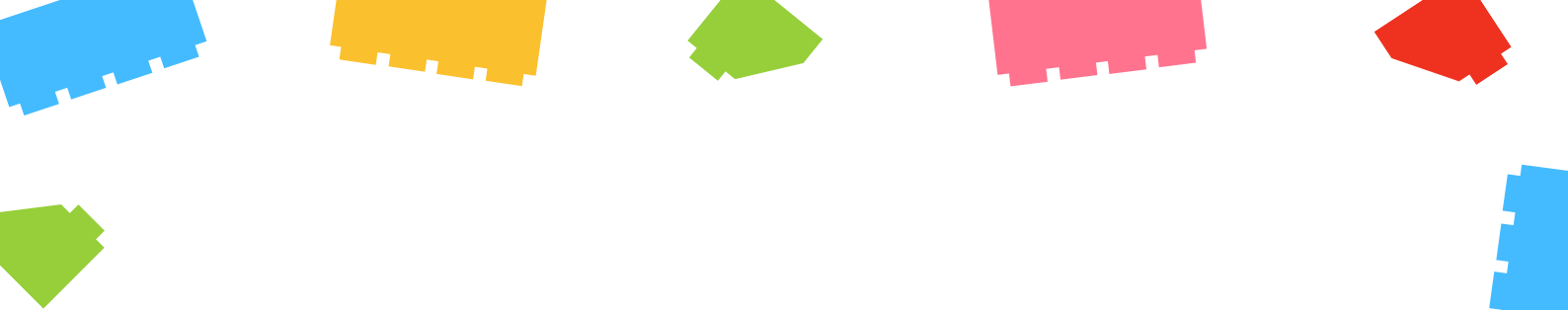
If a child has been unable to securely bond to an attachment figure at a young age, this can have implications for the way that the child expects relationships to operate in later life. For example, if a child has come to understand that their attachment figure is abusive or neglectful they will likely use this as a blueprint for future interactions. Decades of research has shown that security of attachment is linked to an array of child outcomes, including emotional regulation, social interactions and success at school. Children with insecure attachment styles tend to have poor emotional regulation (Braungart-Reiker et al, 2001), be less likely to learn adaptive coping strategies (Cassidy, 1994), be less socially competent and have less friends than securely attached children (Grossmann and Grossmann 1991).

Attachment style has also been found to impact educational outcomes. Insecure toddlers tend to have shorter attention spans and perform worse on cognitive tasks than secure toddlers (Frankel and Bates 1990; Main 1983; Moss and St-Laurent 2001). After they enter school, insecure children tend to have lower verbal ability, math ability, reading comprehension, and overall academic achievement. They also exhibit less curiosity than securely attached children (Granot and Mayseless 2001; Jacobsen and Hofmann 1997; Pianta and Harbers 1996; Weinfield et al. 1999).

Securely attached children, on the other hand learn from their sensitive parents that when an emotion becomes overwhelming, they can reach out to others for help. They learn constructive coping strategies, feel comfortable communicating their emotions, are willing to take on emotionally challenging situations, and discuss emotive topics without anger (Cassidy 1994; Kobak et al. 1993; Sroufe 1996). Cross-sectional studies indicate children with secure attachment styles have more amicable and intimate friendships, are more empathic toward peers, are more well-liked by peers, and are preferred playmates from preschool to primary school. (Allen et al. 1998, 2007; Clark and Ladd 2000; Cohn 1990; DeMulder et al. 2000; LaFreniere et al. 1992; Weinfield et al. 1999).

Improving Attachment to Promote Better Childhood Outcomes

It has been suggested that a child's internal working model (how a child understands relationships and interactions) becomes a part of their personality by around age three (Johnson et al, 2007; Schore, 2000). However, this is not to suggest that attachment styles are not fluid or that they cannot be developed later in life (Innerhofer, 2013).



If parents are able to bond with their children and create consistency and warmth through regular interactions, this may improve the child's ability to bond with the parents and therefore have impacts for other social interaction in their life. Parents who promote a healthy, secure attachment with their child during primary school years (Durham Attachment and Bonding Checklist):

- show interest in the child, the child's schooling and the child's performance
- accept expressions of negative feelings
- respond to the child's overtures
- handle problems with fairness
- initiate affectionate overtures
- use disciplinary measures that are appropriate for the child's age
- assign the child responsibilities
- show the child that they are enjoying spending time together
- know the child's likes and dislikes
- comment on positive behaviours as well as negative.

Brick by Brick has been designed using the principles of attachment theory to provide caregivers with evidence-based tools and techniques they can use to enhance their relationship with their children.

Experiential Learning and Development

"Developing through playing" has become a well-known saying in early childhood education. Through play, children feel free to explore different behavioural combinations as well as enjoy greater flexibility and creativity. Furthermore, play promotes children's motivation, curiosity, and invention, and encourages independence. Play provides chances for children to gain real experiences and use those experiences to organise concepts that enable them to better understand the real world (Bodrova & Leong, 1996).

Brody (1984) believed that blocks are simple and useful materials for facilitating socio-dramatic play. As children develop their imagination and creativities, they use blocks as houses, boats, shops, trains, and buildings to develop themes for their stories. While engaging in fantasy using play blocks, social attitudes develop. Children learn to engage in the development of different ideas, play according to those ideas and thoughts, communicate and negotiate with playmates, and use problem-solving strategies (Johnson, Christie, & Yawkey, 1999).

In addition, children also learn to see things from other's perspectives to work together as a team, to take turns and share blocks, and to help others in block-building processes. Children develop the ability to organize thoughts and activities so that each person involved feels a sense of responsibility and contributes to the team (Yen-Chun, 2010).

Yen-Chun-Lin's study found that block play provides parents with an opportunity to stay in touch with their children and show their consideration and respect for them. Through block play, parents investigate children's behaviours, emotions, and needs, thereby raising their awareness of their children's current mental and physical development. Whenever parents are willing to listen to and support their children's ideas, talk with them, help them extend and enrich their play, and gain a better understanding of their feelings during block play, the distance between parents and children lessens.

Building upon the benefits achieved through experiential learning in the literature, Brick by Brick uses Lego™ as a tool to facilitate relationship building between parents/caregivers and their children.



Brick by Brick

Brick by Brick was designed by a Social Worker in Schools (SWiS) stationed at Redoubt North School, a primary school located in Manukau, South Auckland. SWiS work in partnership with school staff as part of the school community and in addition to social work services, SWiS are able to offer programmes, which can be run with selected groups of children (Oranga Tamariki, 2020).

The SWiS at Redoubt School works with number of clients with complex behavioural, emotional and unmet-basic needs. Many of these children have parents/caregivers who care about supporting their children but feel their children are disengaged. Parents advise that their children often come home from school and spend time on devices or social media, not wanting to spend quality time with parents or to talk to them. Additionally, a number of children have expressed that they themselves feel unable to connect with their parents, they want their parents to be more engaged in their lives but don't know how to make this happen. The SWiS for the school has observed that it is rare for some of these children and their parents/caregivers to find something that they have in common and can spend time together working on.

The Family Works Northern SWiS devised Brick by Brick, a way to use experiential learning with Lego™ in the home environment to help build strong relationships between children and their caregivers. The SWiS provides the parent/caregiver(s) with ongoing advice, support and ideas so they can guide the child's learning. The purpose of this service is to use experiential learning through Lego™ as a tool to build a healthy and sustainable relationships between the child and the parent/caregiver. Lego™ was chosen as an ideal tool to do this because:

- Lego™ is an activity that parents and caregivers can do together with children, unlike screen time, including watching a movie or a television show, Lego™ provides opportunities for parents and children to interact, navigate challenges together and work together toward common goals.
- Lego™ provides consistency in learning tools: students at Redoubt North are already familiar with Lego™ because it is regularly used in the school environment.
- Lego™ is portable and relatively accessible, meaning students can easily take home a kit or a pack and can be store it somewhere in the home.
- Lego™ is reliable and resilient learning tool with no additional costs – unlike technology.



Section 2

Evaluation

Evaluation Objectives

- a. To determine the effectiveness of the pilot programme in meeting its short-term outcome of supporting children and their parents/caregivers to build a strong, relationship through the use of Experiential Learning (EL).
- b. Capture lessons learnt and identify ways in which the operation and targeting of the Brick by Brick programme can be improved.

Intended Outcomes

This evaluation focused on the Brick by Brick programme's effectiveness in using Experiential Learning through Lego™ as a tool to build a healthy and sustainable relationship between the child and the parent/caregiver.

Data Collection

The Brick By Brick programme evaluation utilised qualitative data collection, specifically semi-structured one-on-one interviews with visual aids.

Semi-Structured interviews were carried out with the parents/caregivers of the children. Individual interviews were selected rather than group interviews to elicit insight that may not surface in a group setting. These interviews were carried out post-completion of the 10-week programme.

Parents/caregivers were asked to keep a record of the Lego™-play session with their children and take photos of the Lego™-creations. Parents/caregivers took photos of the work that they had done with children at home. These photographs were used to facilitate discussions with the interviewer.

The interview recordings were thematically analysed by the Service and Evaluation Team. Key themes were identified and mapped against the intended outcomes of the pilot.

Children who participated in the programme were asked to complete a standard Family Works Northern Evaluation form at programme closure and these were used to triangulate the data and provide the children's perspective of the programme.



Section 3

Outcomes

Reason for Participation

The Brick By Brick pilot was run with five of the children that the SWiS works with and their parents/ caregivers in the home-environment. These children were identified by the SWiS as children that could benefit from support in enhancing their relationship with their parents/caregivers. Children came from a variety of backgrounds:

My son and I live alone in Auckland and I'm the man of the house. I do voluntary work with the church and most of the time I am very busy. [Child] is my only child.

I have five children and have guardianship of three of my grandchildren.

I have a big family of five with three beautiful kids. So my eldest is 18. And then I've got my two girls.

Participants gave different reasons for wanting to participate in the Brick by Brick pilot. They were generally interested in gaining support with sibling rivalry and emotional and behavioural challenges but the key reason for participation was a desire to spend more quality time with their children/dependents.

My goal was to spend more one-on-one time with [Child]. I just wanted to have fun with no serious talk.

[Child often feels that] mummy's always busy with work. So this programme was something that I could commit to [doing with] her regularly.

Spending Time with Children

All of the parents/caregivers talked about having high workloads which meant they had less time to spend with their children. For these parents, even when they did get time with their children they did not feel that it was high-quality.

I have three kids and I work full time so my typical day is pretty busy. Looking after two almost grown up kids and managing their schedule along[side] household chores and I also have to dedicate time for my younger one.

Parents spoke about how the programme gave them the structure and routine they needed to ensure they were spending quality time with their children each night.

As a busy parent we sometimes forget our children need time from us and I never had that time to sit down with [child]. This programme helped me dedicate one solid hour and discovered this is something we like to do together.

Even though my life was busy with three grandchildren I made sure the younger one's are put to bed a little earlier than usual so we can dedicate that time for Lego.

Parents also spoke about a reduction in their children's screen time while at home, because of the time spent using Lego. Not only was there a reduction in actual time spent on devices but there was a reduced interest in spending time on devices:

There was a time when [child] would be on her device for hours and I would not realise that being busy with daily chores. Now she comes up to me and reminds me that it is Lego time.

It was always the case that post-school [child] would come home and spend time on the phone, this has reduced a lot and she would rather sit and create something from Lego.



"The thing I liked from Lego with Mum is she was there to help me when I was stuck"

Parent's Mental Wellbeing

Parents and caregivers spoke about the pressures of busy family life and the impacts that this can have on mental wellbeing. For these parents and caregivers, the therapeutic benefits of the programme for them were part of the positive outcomes of their participation.

One parent talked about how the programme helped her to alleviate the stress of a busy workday:

Honestly, I can't talk enough about how much I love it. It's such a benefit to deal with my work stress. I have suggested Lego at work as a team building activity and way to improve mental wellness.

Other parents talked about how the programme helped to give them something positive to focus on while they were facing other challenges in their lives:

Lego was a stress buster. [It helped me leave behind my frustration because of a court case that I am going through.]

Children's Confidence

Many participants spoke about seeing a growth in their children's confidence throughout the programme. One parent spoke about being impressed by their child's patience and problem solving skills when things did not quite go to plan:

During one of our play session we've either missed a whole piece which did not make sense while we were building and were trying hard to see what's going on. We had to go back like three pages, and then undo the work and then do it again. This made me realise [child] is so good at problem solving and confident to complete the build on his own.

The children worked on activities with their parents during the 10-week programme, but in the last week they were allowed to pick a 'big build' project. This was a significant project for the children and participants reported they saw a boost in confidence and a great sense of pride in the children when this was finished:

Building something on his own has really given a boost in the level of confidence in [child].

Being able to complete the big build was the highlight. It required detail and focus. I could see in his eyes the sparkle of being proud of what he had created at the end when we completed the big build.

Children's Expression

All of the parents/caregivers interviewed saw improvements in their children's communication skills and ability to express their thoughts, wants and needs through Lego™.

Parents and caregivers specifically spoke about the "check-in activity" and its benefits. Parents/caregivers would ask the child at the start and end of every session to describe how they feel using the coloured bricks:

We started to talk the Lego language. Instead of asking how are you we started asking each other what colour are you feeling. [Child] would respond, I am feeling a bit grey, not that great. Those are the sorts of things that I'd still like to carry on even though the programme is done.

[Child] used to be very angry about little things. And now, he'll just say I feel a little bit pink today or a little bit orange today. He was really into that with the colors and how you're feeling. By the end of the build [he] will be like a green and he would say I feel good now, a bit happier.

Designed to support the identification of emotions as well as thinking and talking about them, this activity was able to support children to express themselves better through play.

I feel Lego is not just a toy. It's a thing to work with, through life, through your emotions, through doing different skills. He is channeling the feelings for the day through Lego colours which is great progress.

One participant spoke about how she was able to see improved emotional expression in contexts outside of play. Specifically, she talked about how her child would become grumpy if she addressed her in public, but following the programme has become far better at expressing appropriate public emotions:

There was a time when [child] would hide out whenever I came by to visit the school and would avoid eye-contact in front of her friends. Now if she spots me at school she will come over to me and exchange greetings in a warm way. The play sessions have created this fun bond and I feel an improved connection between us.



"I learnt about my feelings. Lego is not just to play with but to have fun and learn."

Patience

All of the parents/caregivers interviewed saw improvements in their children's communication skills and ability to express their thoughts, wants and needs through Lego™.

Parents and caregivers specifically spoke about the "check-in activity" and its benefits. Parents/caregivers would ask the child at the start and end of every session to describe how they feel using the coloured bricks:

While being stuck in a daily busy routine I had no patience to deal with my child and would raise my voice often.

One parent spoke about how he would often interfere with his child's work because he thought he was being helpful. However, through the programme he learnt to allow his child to try new things:

I think I've learned to be more patient, as I was stopping him from doing things he wanted to which hurt his feelings. Now I've realised that I've stopped him from trying.

Parents also observed their children follow the instruction guide patiently to complete the build efficiently.

Through the programme he has learned a lot of patience. He will read the instructions and follow step-by-step instead of getting frustrated and angry. It's been good.

Improved Relationships

Parents spoke about how spending more time with their children, seeing an improvement in their children's confidence, expression and improvements in their own patience helped strengthen their relationship with their children.

One parent shared their experience of navigating a fraught relationship with their child. They felt their relationship was strained and they could not communicate with their child without losing their patience or become angry:

There was a time that I felt the negativity in the house led to outgrow all the positives and I could not even talk to [Child] about smaller things like how his day had been.

Brick by Brick helped the parent to initiate meaningful conversations with their child while spending time doing Lego activities. This ultimately led to a much better relationship between the two:

With Lego now being a part of our life, I feel the difference and can easily communicate through the activities and [Child] expresses his feelings better through colours and the builds.

Another parent spoke about their child's mood swings and tendencies to become grumpy and un-communicative.

This made it almost impossible to communicate with the child. Through the programme, the child began to open up and communicate better:

"I can see the difference in our conversations now. [Child] is not as grumpy as she used to be before and now its easier to have a talk through Lego colors and builds that we create. We have more of fun talks than serious ones."

Parents and caregivers also discussed how they found it easier to get to know children through play and get along better:

"Our relationship was actually just slowing down with increased work pressure and less time spent together. Lego helped us revamp the connection by just spending that time together and having fun with no serious talk."

"It is easier to talk to kids in the language they understand and talking to them while building is something I find most helpful in getting to know [child's] feelings."

Parents and caregivers also observed some of the qualities/skills in their children that they were not aware of prior to the Brick by Brick pilot programme, thereby further improving their relationship:

"Through the play sessions I learnt that [child] likes independence and where I need to draw the line with him. So I've got to sort of like, continue my job as a monk to guide him through life and not interfere too much."

All in all parents and caregivers agreed the programme helped them to improve their relationship with their children.

"We have a stronger relationship now."



"This programme helped me and my nana talk and get along."



Section 3

Learnings

Social Impact

Parents were, overall, very pleased to have had the opportunity to participate in the Brick by Brick programme. They spoke about how the programme helped them to understand that there are other parents and caregivers who face similar parenting challenges. Parents and caregivers felt the programme should be expanded and rolled out to additional places and a few talked about how promotion of the programme through advertising would be beneficial to encourage participation.

I think every parent and school can benefit from this programme. It needs to be advertised, it needs to be more exposed. I think every school in South Auckland should have this programme.

I know a lot of parents like me and I think every one of them would benefit. Every family would benefit from this programme.

Social Workers in Schools

Parents and caregivers said they were motivated to participate in the programme because they had built a strong relationship with their social worker and trusted her judgement.

I agreed to go ahead with the programme on the [SWiS] suggestion as she knows what is best for my kid.

For parents that participated, it was clear the programme helped them to build an even stronger relationship with the SWiS which will likely have a positive impact for any future social work interactions. The parents all expressed their gratitude for the SWiS and saw her dedication as being a key factor in the programme's success.

I really enjoyed the sessions with [SWiS] and look forward to see her every Monday to discuss the programme and my kid's progress.

I just wish [SWiS] knew how much her contribution is impacting our life positively. She just doesn't realise how much good she is doing.

Children Participation in Weekly Sessions

Parents and caregivers were unable to provide any suggestions for programme improvement. However, one parent did mention it could be beneficial to involve the children in the weekly parenting sessions with the SWiS.

I was excited to see my child getting along with other kids during the final celebration session. I just wished they were allowed for all the sessions we met as parents. It would make more sense if kids were present with us.

Conclusion

The evaluation of the Brick by Brick pilot found that the programme was able to meet its intended outcomes of supporting children and their parents/caregivers to build a strong, relationship through the use of Experiential Learning with Lego™.

Through the programme parents were able to demonstrate patience and persistence themselves as well as encourage this in their children through play. This resulted in improved confidence and emotional expression in children. Parents also talked about dedicating time to their children which meant they were able to work on their relationship and spend time away from their devices.

Children enjoyed the programme, expressing that it helped them to improve their relationships with parents/caregivers and learn more about themselves and about Lego™.

The Brick by Brick programme has the potential to be an effective tool for working with families who have trouble with communication, or who just need to spend more time together.





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