



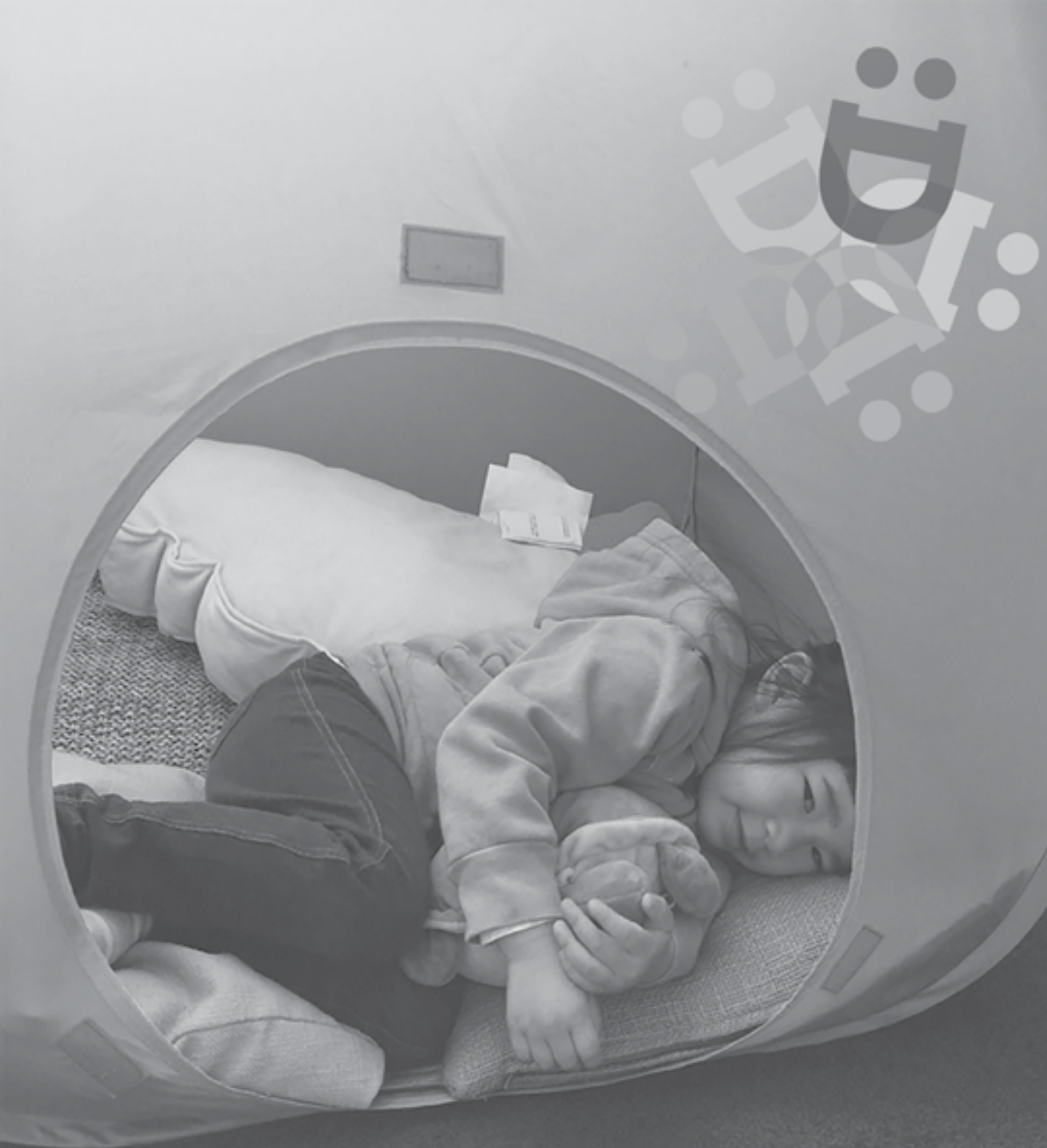
Evaluation Report

Can:Do 4Kids Assistive Technology Resource Library

Supporting kids with disabilities to access assistive technology

Can:Do 4Kids

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Cover image - Can:Do 4Kids client with vision impairment accessing technology.
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This report was produced by Wing Hong Chu, a research and evaluation officer contracted by Can:Do 4Kids to conduct evaluation for the Can:Do 4Kids Assistive Technology Library project.

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Project Description

Under the National Disability Insurance Scheme, children with disabilities are first required to perform assessments to determine if a piece of assistive technology equipment is compatible with their level of sensory processing skills, motor control skills and concentration, prior to purchasing. This assessment process is critical in ensuring that all assistive technology equipment purchased is suitable for the daily living functions of each child with a disability.

However, to undertake this assessment, a library of assistive technology equipment is needed so that children with disabilities can trial different assistive technologies in order for them to find the technology that is most suitable for their needs and preferences. As children with different types of disabilities, including severe vision loss, intellectual disabilities, developmental delays and cerebral palsy, combined with additional comorbidities have largely diverse needs and preferences, trialling with a diverse range of assistive technologies that can best accommodate their independence and daily living functions is needed.

The establishment of the Can:Do 4Kids Assistive Technology Resource Library project was generously funded by the Morialta Trust, State Trustees, Grants SA, Cops for Kids and the ANZ Staff Foundation. The overall goal of the project was to help children with disabilities improve their independence, daily living activities reading performance and access to school curriculum by finding the most optimal assistive technology to accommodate their needs.

There were five main objectives to this project:

1. To set up a library of assistive technology resources for assistive technology assessments and trialling with children with disabilities;
2. To equip children with disabilities with assistive technologies that are most suitable for their needs and sensory preferences;
3. To enable parents to trial assistive technology equipment with their children with disabilities at their natural environment such as home and to purchase the most suitable equipment for their children through NDIS funding;
4. To enable Assistive Technology Specialists to conduct assessments for children with disabilities using the assistive technology resource library; and
5. To enable Can:Do 4Kids therapists to provide therapy for children with disabilities that is highly tailored to their therapeutic and assistive technological needs.



Evaluation Methodology

Evaluation for this project was conducted using a Results-Based Accountability Framework (Figure 1), in accordance to guidelines provided by the South Australian Department of Community and Social Inclusion (DCSI). The evaluation was conducted between July 2018 and November 2018 and included surveys, key informant interviews with participating staff, clients and their families from Can:Do 4Kids. Further details on how these methodologies were implemented are provided below:

Surveys: Assistive Technology Service satisfaction surveys were administered to Can:Do 4Kids clients and their parents at the end of project implementation. Descriptive statistics were analysed and presented.

Key Informant interviews: in total, seven participants were interviewed. Interviewees included two Can:Do 4Kids Assistive Technology Specialists, two occupational therapists and three parents. The breakdown of key informant interviewees is shown in Table 1.

Limitations

Although all efforts were made to meet and discuss with as many participants of the project as possible, a number of logistical and practical factors impeded this from happening. Some of the limitations of this evaluation include:

Due to busy schedules and confidentiality concerns, not all parents of children with disabilities involved in this project were willing to participate in interviews or surveys.

Surveys were administered and collected through an online platform due to resources restraint.



Table 1. Key Informant Interviews

Key Informant Interviewees	
Assistive Technology Specialists	2
Occupational Therapists	2
Parents	3
Total	7

Figure 1. Results Based Accountability Framework



Results

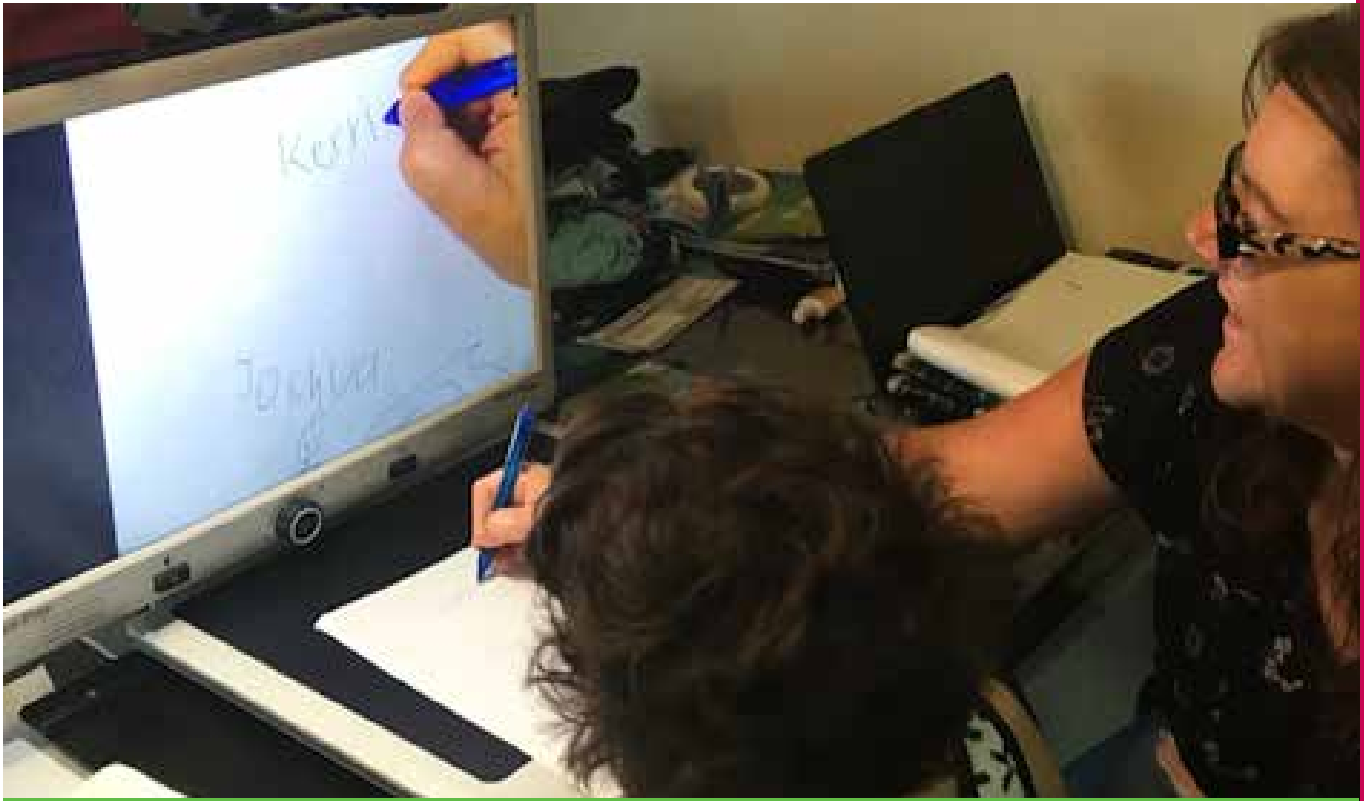


Figure 1. Results Based Accountability Framework



Results

As stated by United Nations International Children's Emergency Fund (UNICEF), access to assistive technology is instrumental in advancing equal opportunities and social inclusion of children with disabilities [1].

The basic premises of this project are that children with disabilities would be able to find and be equipped with assistive technologies most suitable to their needs through trialling with different resources available in an established assistive technology resource library. In effect, the library would improve the access of children with disabilities to assistive technologies and thereby enhance their independence and participation at home and in public settings such as school and community.

This project successfully benefited 575 children with disabilities, who had access to the Assistive Technology Resource Library in its first year of establishment.

- 319% increase from the number of children with disabilities who were initially anticipated to benefit from this project.
- 33 assistive technology need assessments were successfully provided with the support of CD4Ks therapists and the newly established Assistive Technology Resource Library.
- 23 assistive technologies, tailored to the needs and preferences of children with disabilities, were purchased through their NDIS plans.
- 23 items purchased for Assistive Technology Resource Library.

With the help of assistive technology, independent living skills training were provided by Can:Do 4Kids occupational therapists to children with disabilities for the improvement of their ability to take care of themselves and to undertake cooking, cleaning and other domestic duties independently.



Case Study 1

Brandon* and Louis* are 8 year old identical twins. Both born with severe vision impairments they have trouble seeing small print fonts on everything at school and at home. They have fallen behind their peers in reading and literacy performance. Further compounding on their sensory condition was their congenital diagnosis of hearing loss and Stickler's syndrome, which adversely impacted on their listening skills and daily living independence.

Late last year, Melissa*, Louis and Brandon's mother, recognised that her children needed the right assistive technology support to help them see, read, write and study, so she took them to see Assistive Technology Specialists at Can:Do 4Kids.

To help Brandon and Louis find magnifiers that were most comfortable and suitable for them, the children tried on an extensive range of desktop and portable electronic magnifiers that were available in the Assistive Technology Resource Library. Under the careful guidance of the Can:Do 4Kids Assistive Technology Specialists, Brandon and Louis found the Da Vinci Pro Desktop Magnifier to be most compatible with their needs and daily living routines after two hours of assessment and consultation.

With support from the Assistive Technology Specialists and the Assistive Technology Resource Library, Melissa was able to purchase Da Vinci Pro Desktop Magnifiers for her children through NDIS. Now, Brandon and Louis use the Da Vinci Pro Desktop magnifiers every day to help them read, play, study and see their own handwriting on their homework.

If Melissa had been unable to access the Assistive Technology Resource Library, she may have purchased magnifiers that were uncomfortable and unsuitable for her children's needs and daily living routines. As a consequence, her children could have refused to use the magnifiers completely, resulting in a delay in the development of their reading, handwriting and literacy skills. Being able to trial ATS equipment in advance of purchase is vital to these children's long-term developmental outcomes.

*Name changed to protect the confidentiality of clients and their family members.



Results

Parents of children who had utilised the Can:Do 4Kids Assistive Technology Resource Library were surveyed about their outcomes, satisfaction and experience.



All participants (100%) strongly agreed that the Can:Do 4Kids Assistive Technology Resource Library has helped them with finding the right assistive technologies to meet the needs of their children.



All participants (100%) strongly agreed that the Can:Do 4Kids Assistive Technology Specialists have helped them with understanding the use of assistive technologies to support their children.



All participants (100%) strongly agreed that the Can:Do 4Kids Assistive Technology Specialists have helped their children with using assistive technologies.



All participants (100%) strongly agreed that the Can:Do 4Kids Assistive Technology Specialists have helped them with using assistive technologies to support their children.



All participants (100%) were very satisfied with the information on assistive technologies, with which they have been provided.

Parents' Testimonials

"My son is the beneficiary of an amazing assistive technology program. He has grown in confidence and it has enabled him to access the curriculum far more easily. If we ever had questions, they were quickly explored and answered. A wonderful service."

Bronwyn, parent

"The support of assistive technologies from Can:Do 4Kids has been very helpful for the boys and our family. Assistive technology has been a big part of the boys' learning journey since they started school. To have access to all the different types of technologies has been a huge benefit for the boys and our family.

Being able to trial all the different technologies available has been a great support for the boys to work out what is the best type of technologies for them to use at school and home."

Melissa, parent of the twins

"Tristan (Can:Do 4Kids Assistive Technology Specialist) and his assistive technology expertise have been crucial to our son's success both at school and in the community. Many thanks for all you do."

Annie, parent

Case Study 2

Jonathan* is a 15 year old boy who was born with Bardet-Biedl syndrome. This is a disorder characterised by vision loss, with blind spots obstructing his peripheral vision. At the beginning of this year, Jonathan had moderate vision impairments; however, late in March, he experienced a sudden drop in vision, leaving him with profound vision loss.

Following his sudden drop in vision, Jonathan was referred to the Assistive Technology Specialists at Can:Do 4Kids. For Jonathan to read, write and study effectively, he required a stationary desktop magnifier through which he could see and read textbooks, diagrams, photos and figures as well as his own handwriting. Using the resources available in the Assistive Technology Resource Library, the Assistive Technology Specialists explored several different types of stationary desktop magnifiers with Jonathan and found that the Clearview C desktop magnifier to be most suited to his preferences in terms of font size, brightness, contrast and accessibility settings.

For Jonathan to access information in his surrounding environment conveniently, he required the support from a handheld portable electronic magnifier which he could carry around and use with mobility. Through trialling with the different types of portable electronic magnifiers available in the assistive technology resource library, Jonathan was able to find Optelec Compact 7 HD handheld magnifier to be most accommodating of his sensory and daily needs.

To further enhance his development of independence and daily living skills, the Assistive Technology Specialists and Analise, an Occupational Therapist at Can:Do 4Kids, have been teaching Jonathan how to use his handheld magnifier to access instructions on cooking equipment, so that he could bake independently. Through several months of training, Jonathan has learnt how to bake and is now able to make a chocolate cake independently.

*Name changed to protect the confidentiality of clients and their family members.



Therapists' Testimonials

Adriana Sapio

Occupational Therapist and Assistive Technology Specialist



“By having access to a pool of assistive technologies, we have had the ability to provide a comprehensive assessment and trialling of a plethora of devices. Together with the child and their family, we have been able to showcase what is available and make informed decisions to suit each individual family’s unique needs. We have been much more successful in then advocating this to NDIS, with much higher success rate in having devices approved. It has also provided

parents with piece of mind that their child, with the right technology, will be able

to access visual information in their home and community just like their typically sighted peers. We are also fortunate to be able to show parents the ‘assistive technology pathway’ that their child may experience throughout their lifespan; e.g. the more suitable devices for younger children which later evolve to more compact portable devices as they reach adolescent years. This has been somewhat reassuring for parents and provided them with the education and understanding of what is available.”

Tristan Fergusson

Assistive Technology Specialist



“With the assistive technology that has been purchased with these grants the assistive technology team has been able to provide children and their families the specialised assessment and justification reports to successfully advocate the purchase of their own equipment through the NDIS. With this technology the assistive technology team have been able to provide clients the access to print material and digital information they were not able to access before.”

Conclusions

The importance of assistive technologies in the daily lives of children with disabilities is increasingly being recognised [2]. To compensate for sensory conditions, assistive technologies such as magnifiers can support the independent development of children with disabilities in multiple areas of key function including literacy, communication, sensory processing, mobility, independence and social participation.

The successful implementation of the Can:Do 4Kids Assistive Technology Resource Library project clearly demonstrates that:

- (i) All key outputs of the project were achieved.
- (ii) 575 children with disabilities and their parents were provided with access to and use of the Assistive Technology Resource Library.
- (iii) 319% more beneficiaries were reached than expected (i.e. expected outcomes 180 children with a disability; actual outcomes 575 children with a disability).

Evaluation results from the case studies presented here provide illustrative evidence of the benefits which the Assistive Technology Resource Library provides to children with disabilities, particularly in helping them with finding the right assistive technologies most suitable for their sensory needs so that they are enabled to further develop their independent living, educational and mobility skills.

Loaning of the assistive technologies through the library has also enabled parents to purchase the right assistive technologies for their children, leading to increased usability, frequency of technology use as well as developmental outcomes and cost-effectiveness.

Besides children with disabilities and their families, the evaluation results showed that the Assistive Technology Specialists at Can:Do 4Kids were able to conduct assessments for 33 children with disabilities using the resources available in the library. Evaluation results from the case studies further demonstrated that occupational therapy sessions became more client-focused and were more specifically tailored towards the daily living and assistive technological needs of children with disabilities.

Collectively, these findings suggest that the Assistive Technology Resource Library project has greatly enabled children with disabilities in receiving therapy that are more closely tailored to their daily living and assistive technological needs and, in effect, contributing towards their improvements in independence and educational skills.

References

1. World Health Organization, Assistive Technology for Children with Disabilities: Creating Opportunities for Education, Inclusion and Participation - A discussion paper. 2015, World Health Organization.
2. World Health Organization, Priority assistive products list: improving access to assistive technology for everyone, everywhere. 2016.

