



Cross-Agency Learning Resource Project

Funded by the Wayne Francis Charitable Trust

Project Report for Parents and Teachers

June 2013

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¹ During the project, what are called Visual Resource Specialists in this report were termed Family Liaison Workers. See Footnote 4 for explanation of the change.

Acknowledgements

The people listed on the title page of this report are those team members who either saw the project through from start to finish or were on the team at its conclusion, having joined partway through. In addition to those listed, the following made valuable contributions to the project and to our understanding of how to support children with visuals in the classroom: Margaret Collins (Special Needs Library), Lyn Broadbent and Nicky Hanger (Dyspraxia Support Group); Catherine Woods, Catherine Fink, and Adrienne O'Shea (additional Visual Resource Specialists in the course of the project).

Catherine Woods and Catherine Fink, in particular, provided very thoughtful feedback on many of the issues we needed to solve at the beginning of the project and their suggestions have had significant impact on the project's protocols. Similarly, the cooperation of the Ministry of Education Special Education Department in Christchurch is much appreciated as they gave us permission to engage with schools provided it was initiated by the families and agreed to by the principals; and also cleared the way for our specialists to approach theirs, colleague to colleague, to share information about children as necessary.

The organisational skills of Catherine Woods and, particularly, Michelle Davey and Lee Bennetts cannot be overestimated. Without Michelle's drive for neatness and completeness, the documentation would have been far less complete than it is; and between them Michelle and Lee kept the project driving forward and developing intelligently in response to the issues that arose.

Dr. Amanda Kirby of the Dyscovery Centre in Wales gave us thoughtful advice about baselines measures and about limiting our participant pool; and the opportunities to present parts of the information described here through the New Zealand Dyspraxia Support Group's 'Tools for Teachers' events helped us understand what we knew and what we didn't yet know as the project evolved. It also gave us insight into the reactions of teachers to the ideas we were developing.

Finally, we must acknowledge the children, families and schools who stuck with the project through a period of intense disruption in Christchurch spanning, as it did, the sequence of earthquakes and aftershocks that started on the 4th September 2010. There were times when the whole endeavour felt undoable; but the benefit that the families, teachers and project members saw to the children kept us all going.

None of what we achieved in this project would have been possible without the generosity of the Wayne Francis Charitable Trust, whose confidence that we could and should do this piece of work was unfailing. We will endeavour to expand the impact of the funding as we move forward to spread the word about the effectiveness of visual supports in families and in classrooms. We also acknowledge the support of the J R McKenzie Trust who funded an independent review of the project outcomes (reported separately).

Christchurch, June 2013

This report has been excerpted from a longer project report submitted to the Wayne Francis Charitable Trust.

Also available are:

[Implementing a Visual Supports Programme: an outline for schools](#)

[Who Needs Visuals? \(a handout for parents and teachers\)](#)

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Executive Summary

With the support of the Wayne Francis Charitable Trust and the J R McKenzie Trust, four agencies in Christchurch (The Champion Centre, Seabrook Mackenzie Centre, Dyspraxia Support Group and Special Needs Library) joined forces between 2009 and 2012 to explore how children with moderate disabilities who have significant difficulty accessing their primary school curriculum could profit from the introduction of low tech visual supports both at home and at school.

The project provided visual supports (pictures, visual schedules etc.) and training to the families and schools of 23 children between the age of 5 and 10 who found it hard to organize themselves at home and at school, remember and stay focused on tasks, or for whom anxiety about what was expected of them prevented them from performing as well as they were cognitively able. Under the guidance of a speech and language therapist and an occupational therapist, a project team member evaluated the challenges faced by each child at home and at school, developed appropriate visual resources, and trained parents and teachers in how to implement them at home and in school.

At the beginning of the project, teachers and parents reported concerns such as "without structure he is constantly asking questions", "she gives up easily", "he gets upset when we do things a different way", "his independence in the classroom is poor", and "he gets frustrated and acts stupidly and misbehaves". At the end of the project these same adults said things such as "he is much more independent", "she is definitely less anxious", "I really do feel that it benefitted him for the long term", and "I've got a little boy who can get up every day and get organized for school". And the children themselves said things like: "I don't have to ask mum all the time, I can just look at the board and see what I need to do next" and "they do help me to remember what task I need to be doing and which ones I still need to do" and "they are cool to use"!

The success of the project from the perspective of the project team is mirrored in an independent evaluation of the project undertaken by the Donald Beasley Institute who concluded "Parents were overwhelmingly positive about the success of the project". Feedback from teachers to the DBI team described the project as "very successful" or "quite successful". There were, however, a number of teachers who did not feel visuals would be an asset in their classrooms, or felt unable to commit to their introduction, and who were resistant to their integration into their classrooms.

Among the recommendations from both the DBI and project teams are that visual resources be implemented into classrooms as a key communication strategy for all children; that a series of seminars be delivered involving teachers who have embraced the visuals and understand their power; that teachers be supported to develop their own visual resources; and that parents receive education in the development of simple visuals that can help them help their children.

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Introduction

Although visuals are often implemented to help children access the curriculum, and are intuitively useful, there is very little empirical research on their use². The project undertaken by the Cross-Agency Learning Resource Project set out to both provide a pilot visual support service for children in primary schools and to document its effectiveness.

The project was stimulated by reports from parents that their children were frequently frustrated by daily tasks at home and not able to demonstrate their full capabilities at school; from specialist teachers and therapists concerned that visual supports provided to children transitioning from early intervention services were not continued at school; and from teachers who understood the value of visuals but who were frustrated that they were not more widely used.

The concerns of parents were centred around how difficult it is to understand and manage the pressures on their child. How could they send a child who regularly had morning 'melt-downs' of anxiety and frustration to school in a fit state to learn? How were parents to respond when their child had managed to 'hold it together' while in school but who 'exploded' as soon as they got home. These parents often were unable to follow a homework schedule with their child on such an evening, and so the child went to school less prepared for the following day and was further frustrated and anxious. Sometimes parents reported that their child's teacher was sympathetic; at other times they recounted a sad history of either refusal to believe the home problems were as great as they were, or a litany of complaint from the teacher about their child's behaviour in the classroom and their inability to follow the school programme.

Together the four agencies wondered how to get teachers and parents 'on the same page' so that both contexts of children's lives were understood by both sets of adults. Knowing the power of visuals from long experience, they also wanted to find the best way to introduce them to support the children's access to the curriculum and participation in the life of both classroom and home.

A three-year proposal was developed and costed at the invitation of the Wayne Francis Charitable Trust, which agreed to fund it. They invited the J R McKenzie Trust to join them in funding us. This latter group agreed but preferred to fund an independent review of the project to run in parallel, and the Donald Beasley Institute (DBI) in Dunedin agreed to take on that work. The project began in earnest in June 2009 and ran until August 2012, after which the reporting was completed.

Once a fairly detailed plan for the project had been mapped out, the project coordinator met with representatives of the Ministry of Education Special Education to seek approval for the work. It was explained that the project would be working with teachers and children at the request of, and with the approval

² There is, of course, literature on visuals as Augmentative and Alternative Communication (AAC); but the general use of visuals for accessing the curriculum appears to have been little studied. See next section.

of, the families and that schools would only be approached at the request of the families. It was made clear that the project did not intend to provide services to children already enrolled in the Ongoing Reviewable Resource Scheme (now the Ongoing Resource Scheme), and would be working with children who received little or no services from the Ministry of Education. It was agreed that if children were receiving some minor support, but their parents and teachers felt visual supports were appropriate, there would be direct professional to professional contact to make sure there was no conflict in service provision. Clearance for the research aspect of the project was received from the University of Canterbury's Human Ethics Committee.

Before turning to the practicalities of the project methodology, it is worth providing a brief review of what is known about the value of visual supports for children who are struggling in school or at home. Some of this evidence is summarised in our visual supports pamphlet that we developed for teachers and parents (available on request).

Brief Literature Review

There are a number of reasons why a child might be having difficulty at school. Perhaps the most pervasive are challenges to short term and working memory. These are experienced both by children with diagnosable conditions such as Specific Language Impairment (SLI) and Developmental DCD/Dyspraxia and by children who lag behind their peers but do not have a specific diagnosis (Gathercole and Alloway 2006).

Difficulties with short term memory mean that children too quickly forget what they have been told or have seen; and difficulties with working memory mean that they have trouble manipulating in their mind what they have seen and heard. Both challenges have been shown to result in learning difficulties (Gathercole and Alloway 2006) when children cannot attend to, remember, and process what they are expected to learn. Faced with such difficulties, of which the children themselves are often all too aware, they find themselves confused, frustrated, angry and anxious. Their reactions to these feelings are, understandably, to behave in ways that mean they are able to avoid tasks they find difficult (Mehrotra, Ahamad Manzur et al. 2011).

To support the children's memories, the project aimed to exploit the known superiority of visual information. As Medina (2008) (cited in Frey and Fisher (2010)) suggests "vision trumps all other senses and is 'probably the best single tool we have for learning anything' (p.233)". Moreover, as Frey and Fisher themselves note, "all visual information isn't equal. Pictures consistently trump text or oral presentations. This is so common that cognitive scientists have a name for it: pictorial superiority effect (Stenberg 2006)[and] it is not just that pictures are easier to remember, they're significantly more likely to be stored and much more likely to be retrieved." (Frey and Fisher 2010).

The assumption was, therefore, that the 'pictorial superiority effect' could be utilised to assist the attention and focus of children who struggle in their classroom and support their capacity to be self-regulated (calm) and therefore open to learning (von Suchodoletz, Trommsdorff et al. 2009). The project could also be seen as contributing to the key competencies of the New Zealand

Curriculum by exploiting the capacity of symbols and pictures to enhance children's ability to access the curriculum and enable them to participate and contribute in their classrooms (Ministry of New Zealand Ministry of Education 2007).

Project Methodology

The goal was to determine the challenges faced by children in both their home and school environments for which visual supports might be at least a partial solution. Measures and procedures were therefore developed and/or selected that would lead to an understanding of the initial challenges; to the development of appropriate supports; and would allow evaluation of their effectiveness. The essential components were:

- Initial interviews and observations at home and at school of children referred to the project
- Procedures for discussing the initial findings with appropriate professionals (Speech Language Therapist and/or Occupational Therapist)
- Procedures for making the visuals and for introducing them to children, families and schools
- Procedures for observing the effect of the visuals and making changes to them as needed.

Sources of data

Initial parent/caregiver structured interviews

The initial parent/caregiver interview³ was designed to provide a picture of the challenges faced by the child either at home or at school or both. The design of the parent interview schedules was based on clinical experience as well as knowledge of existing interview protocols (including the SNAP-IV, SWAN and the DCDQ and the Classroom Accommodation Checklist and School-Age checklist).

The questions in the first part of the interview focussed on the child's history, including whether the child was born prematurely, or had challenges of vision or hearing, as these would be important in understanding whether any particular adaptations of visual supports might be needed (e.g., enlarged size), whether there were likely to be challenges to processing that are known risk factors in children born prematurely, and whether there had been any early risks to the parent child relationship, e.g., from extended hospital stays.

The second set of questions covered parents' perceptions of the child's developmental path with a view to understanding whether the child was likely to be facing mild to moderate or more severe developmental challenges. The third section addressed the child's interests and their capacity for focussed attention, their triggers for frustration, and the consistency of parental responses to

³ The interview protocol and all other documents mentioned in this report are available on request.

'behaviour'. A key question here was 'Describe your child's behaviour on a good day. Describe a bad day.'

The fourth section was designed to help the team understand the extent to which daily home life was routine-based and what the child's capacity for following routines was like. In particular, we wanted to know how they coped with changes to routines and transitions between activities and environments. A section of questions asked how parents felt their child's schooling was going and how well the home and school were communicating with each other. A few questions about sleeping and eating designed to see whether stamina and energy levels were an issue were followed by a final section in which parents were asked to share their concerns about their child, the supports they felt they received or needed, and to indicate any assessments or other professional input their child had received to date.

Initial teacher structured interviews

On the assumption that reflection on children would be more familiar to teachers (and that teachers are busy people), the teacher interview was a shorter set of questions designed to capture the challenges faced by the child at school. Teachers were asked to indicate how long they had been teaching the child, to evaluate informally the child's integration into the classroom and their academic level. There were also specific questions about how the child coped with transitions, the kinds of supplemental supports they were already receiving and any concerns the teacher felt needed to be addressed.

The information collected in the initial interviews with parents and teachers was summarised into a single document which was used as the basis for opening discussion with the family by the team member who would create and put the visuals into place, i.e. the Visual Resource Specialist⁴ (VRS). It also provided an initial picture of the child that could inform both VRS and the consulting Speech and Language Therapist and Occupational Therapist as they began their discussions about how to meet the child's needs.

Initial home and classroom observations

Initial observations in the home and school were focussed on those issues identified by the family and teachers during the initial interview phase. The school observations were guided by a set of guidelines for observation and analysis.

Field notes

The VRSs kept detailed field notes of their work on the project, including observations at home and at school that reflected the progress of introducing the visuals and their impact. Training on how to write these notes was provided by the consulting specialist SLT and OT.

Documents from other professionals

With parent permission, the VRSs also collected any existing documents that were relevant to understanding the child's need for, and capacity to use, visual

⁴ In the project we called these people Family Liaison Workers, but felt that schools might be more likely to recognise the value of the approach we took if we used a more educational term in this report.

supports. These included reports from other professionals such as SLTs or OTs who were either currently involved with the child or had been in the past, and Individual Education Programme (IEP) documents.

Final home and school observations

At the end of the project, schools and families were interviewed and children were observed at home and at school. The family was asked whether the project had addressed their initial concerns and how the child had responded to the visuals. The child was asked for his/her experience with them; and the child's current teacher was asked to evaluate the impact of the visuals from their point of view.

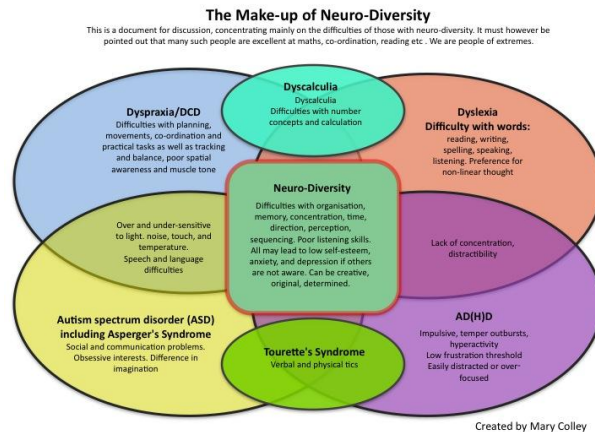
N.B. The project also collected data using a standardised questionnaire known as the **ABASII**. The information gathered by this method is reported elsewhere.

Participants

26 children were referred to and accepted into the project across the three years of data collection. For a variety of reasons, three of these children did not complete the project leaving 23 children ranging in age from 5 to 10 years old at the start of the project, to between 7 and 11 years at the end of the project. Of the 23 children, 16 had a diagnosis of DCD/Dyspraxia, with or without other complicating conditions. The remainder had other conditions such as ADHD and ASD. 19 of the 23 children were boys.

It is well established that boys are more common across all categories of disability for a variety of reasons. It should not be a surprise then that they predominate in this study. That so many have DCD/Dyspraxia as their diagnosis is partly an artefact of the Dyspraxia Support Group being one of the participating agencies in the study with the knowledge and opportunity to use the study as a resource for parents seeking help for their child. However, DCD/Dyspraxia is also very commonly the cause of more moderate challenges that may or may not be picked up in early childhood, but become very visible to teachers and parents when the scholastic and sporting expectations of children become greater.

It is important to recognise, too, that DCD/Dyspraxia is a condition that overlaps a number of other conditions, as the diagram below suggests. As such, children who are known to the Dyspraxia support group may have challenges that go beyond a classical definition of DCD/Dyspraxia and are typical of conditions such as ADD or ADHD and Autism Spectrum Disorder.



The policy of the project was that children would stay in the project until they clearly no longer needed its support, until they received ORS funding or until they relocated out of the project's geographical area. In fact, despite earthquakes, all the children continued in the project to the close of the data collection period.

Results

Initial concerns of parents and teachers

The concerns of parents and teachers were gathered from the initial parent and teacher interviews and the initial observations of the children at home and at school. The similarity and consistency of concerns between home and school were striking, suggesting that while some children may have greater challenges in one context than the other, the issues the children faced are largely inherent to them and their way of understanding the world. Here are some of the comments from parents at the start of the project:

"Spontaneity throws him" "he wouldn't know what to do without [structure and routine]",

"without structure he is constantly asking questions"

"she gives up easily"

"she has difficulty completing a task within a time frame"

"multiple step routines are difficult"

How their child showed their frustrations:

"Acts stupidly and misbehaves" "yelling, hitting people or things, physical displays of aggression and tantrums"

"repeats requests loudly, runs away and hides"

"looks angry, grimaces, hides to control or regulate emotion"

"Physically tenses up, bottles things up at school and brings it home"

And from teachers:

"Teacher directed activities are a problem, not self directed activity. Going to desk and getting started on a task. Gets distracted by things at desk, e.g. pencils etc. Starting and maintaining focus most tasks. Independence in the classroom is poor."

"If transitions involve moving with or waiting for other children, [child] can find this difficult. Moving to the mat or off the mat can result in bumping, pushing other children. Can be silly when moving around school in a line."

"gets distracted by other children, by items in desks, wanders around."

"takes longer to process things"

"he gets upset when we do things a different way."

The most common concern identified by both parents and teachers was the children's inability to carry out a routine or a task, either at home or at school, without repeated prompting. Many parents and teachers commented that the children had difficulties with following verbal instructions, particularly ones that involved multiple steps, which is presumably why they needed the repeated prompting. Not surprisingly, given the challenges to actually performing a task independently, a very common concern expressed was children's inability to organise and manage the equipment and belongings needed for those tasks or for other tasks during their day.

Distractibility and difficulty sustaining attention (particularly in a noisy classroom) were often mentioned with a perhaps inevitable impact on their ability to complete a task within an expected time-frame, presumably leading to more prompting from adults. Difficulty with actually starting a task and shifting from one task to another were also identified as common challenges. In addition to attention issues, some teachers identified slow processing as a reason for the poor task performance resulting in more time being needed for a task. They also identified challenges with fine-motor control that slowed completion of tasks involving writing.

Several children tried to solve their problems by themselves by copying the behaviour of others in the classroom, but that usually resulted in them trailing behind their peers in task completion.

The negative impact of their challenges on the children themselves is reflected in the frequent reference to children's anxiety, frustration, difficulties with peer relationships and poor self-esteem, with some parents saying their children have difficulty with feeling the pressure of having to perform at school.

Goals for children

While some of the goals developed for individual children were very specific to them (e.g., the taking of medications on schedule, having a checklist for activities during a holiday programme, remembering to put their glasses on) the vast majority were common across all or almost all the children.

The most common goal was to predict and follow through on daily living routines and activities independently. These routines most typically included getting up and dressed, getting breakfast, packing their bag, doing homework, doing chores and completing bedtime routines. For many children, there was a need for a reminder about tasks not only on a daily basis but also on a weekly basis. This was particularly true of children with separated parents with shared custody who needed to be reminded who would pick them up from school each day, which house they were going to on which day, and what they needed to have with them for each place. Independent toileting was also a goal both at home and at school for several of the children.

Almost all the children also had goals related to following the sequence of activities and routines at school; including having the right equipment on hand and used for each task. Several also had overt goals about abiding by the social rules of the classroom such as being aware of their feelings of frustration, asking for help but not asking for too much help, and following expectations about the use of their voices and bodies.

The net effect was that although there might be some variation in the way appropriate visuals were presented, they were so similar from one child to another they could almost be duplicated in advance.

Visual Supports Created

The project had access to the Boardmaker and the Picture Communication Symbols© 1981-2001, an ideal programme for these sorts of supports. However, any picture system that is comprehensible to the children is acceptable. Below are some examples of the sorts of visuals created.

The set of images below illustrate the components of a morning routine. The images can be cut up and separately laminated and attached by Velcro to a back board or strip, or can have magnets attached so that they can be placed in order on the fridge or other surface.



Some children used the whole sheet laminated and were able to check off their tasks as they were completed. The example below shows a format for this:



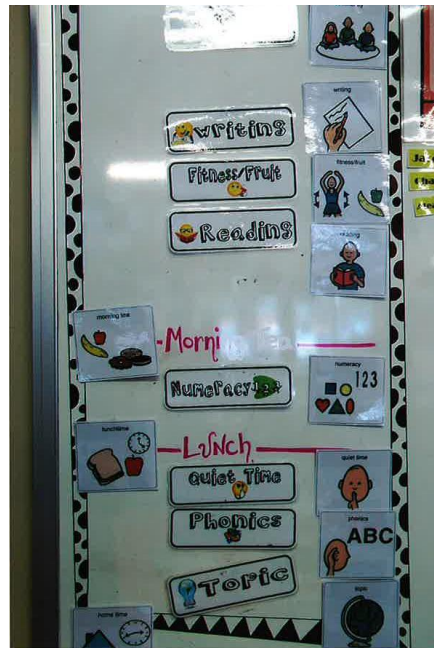
A smiley face that represents the completion of a sequence, as shown below, can often be helpful and a reward in and of itself.



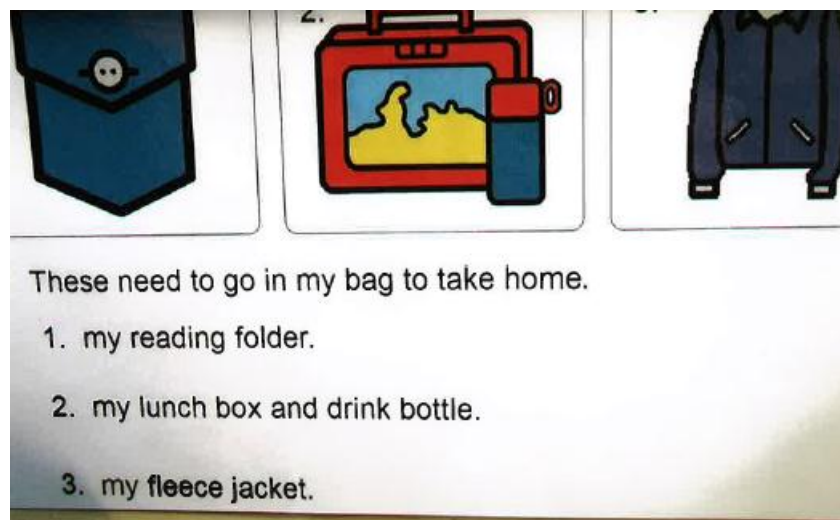
At school, daily and weekly schedules can be for one child, a group, or a whole classroom. Below is part of a school schedule for a child to have on their own table or desk.



The lettering in the classroom visual schedule below is not as clear as would be ideal, but the idea of a schedule that all the class can use is excellent.



The child who used the reminder schedule below is able to read, but the pictures provided additional support for comprehension and memory.



This weekly schedule can be used by one child or a group:



Other visuals are for just one child. This ring set helps children transition from one activity to another:



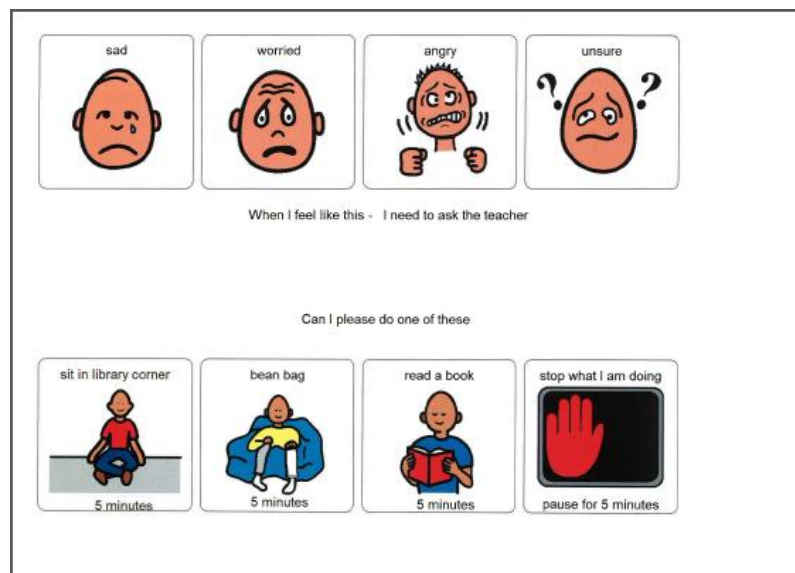
This backpack carries the reminder to take the empty lunch box home:



And this schedule is for toileting:



For many children with organisational challenges, the feeling of being confused, anxious, angry or embarrassed can be overwhelming and they need to both recognise how they feel and what their options are for dealing with those feelings. The images below can be very helpful.



Introducing the visuals at home and at school

In introducing the visuals, it was important to get 'buy-in' from child, teacher and parent, so the way they were introduced was extremely important. They certainly could not be simply handed to the parent, child or teacher with the expectation that they would be used appropriately; or even used at all.

Sometimes visuals were introduced by talking with parents and teachers who then introduced them to the child. Usually, however, it involved meeting with the family, child, and teacher and making various decisions about how they were to be placed and used. For example, it was important to choose the right place for the visuals to be placed (e.g., on the stove vs. fridge at home), including how visible the child wanted them to be to others (e.g., on the desk vs. inside the desk at school).

Both at home and at school, the VRS often observed for an extended period of time and modelled and coached the use of the visuals with parents, teachers and children at the precise times they were needed. This might be followed after a span of days with another observation to see if the introduction had been successful or if any adjustments needed to be made.

In both homes and classrooms, it was important to understand the culture and how best to adapt and integrate the visuals into the context. On occasion, the adults also needed to be reminded that if a child was succeeding with the visual supports, they should not assume the same success without them; so determining when to withdraw the visuals needed to be done with care. Ideally, the child decided when to let them go.

Project outcomes

While some parents and teachers identified that their children continued to need help with organisational independence, the feedback from parents, teachers and the children themselves suggest the visuals had an overwhelmingly positive impact.

Some of the responses of the parents and children provided to project staff at the end of the project are provided below.

What the parents said about the project outcomes:

"I don't have to prompt [child] as much anymore and he is much more independent"

"Now that [child] is more independent, I can introduce more tasks such as chores into his routine"

"[Child] is definitely less anxious, generally more easy-going and happy.....It has absolutely been worth having [child] on the project, it has been positive and anything that could have lessened his anxiety is worthwhile".

Visuals "are probably the most relevant, useful and widely used of all the tools we have to support [child]. They have such a wide and endless range of applications across all areas of his routine, self confidence and self- management. We have embraced them as a family and they are now very much part of our day to day life"

Almost all the families (21 of 23) reported increased independence in morning and evening routines, and two of these also reported that the child had been able to take on extra responsibilities at home because of the visual supports.

Teachers of more than half the children reported the children were better able to follow the classroom routines and/or were more independent in class. At the same time, the teachers and/or parents of at least 6 of the children acknowledged that the child still needed a lot of support and reminding to use the visuals.

The parents and teachers of 9 of the children reported that the child was managing their equipment better; and a couple for whom toileting was an issue reported success in toileting.

Particularly pleasing is the number of children who were managing their own visuals (four) or had outgrown some or all of them (eight). Below are some of the comments that the children offered themselves in the final interviews:

"I don't have to ask Mum all the time, I can just look at the board and see what I need to do next".

"they tell me what I'm gonna do next and after"

"I am not using the visuals at home anymore. I don't need them because I know what to do."

"Have helped me to remember what to do in the morning and at night time.....they remind me....the pictures on the drawers help me to find stuff....the visuals in the class are really good at showing me what we are doing in class"

I "do not have to ask for help so much"

They "get in your mind" and they are "cool to use", as is only using them occasionally as "most of the time I remember".

"Visuals are great. They tell us what to do so we can just do it and go there and Mummy doesn't need to nag."

Visuals "are also good because they are really great at showing what we are doing each day, so I know what to do each day. It helps because if I forget I can always go to the fridge and look."

"When I had the pictures at home and I kept looking at them and they reminded me and got stuck in my head."

"I like to use the visuals." "They do help me to remember what task I need to be doing and which ones I still need to do."

Finally, the parents and/or teachers of 10 of the children reported that the children were calmer or less anxious and/or less challenging in their behaviour. As these two outcomes are linked they can be taken to reflect greater physiological regulation (Posner and Rothbart 2000).

The results reported above are obviously very pleasing. However, it is important to record the less positive feedback as well. Firstly, within families not everyone was equally positive. Particularly in cases where parents were separated, mothers and fathers did not equally see the value of the visuals, did not implement them with the same enthusiasm, and did not credit them with the same success.

Some children also were unsure about the visuals. In a couple of cases, however, the feeling that they were perceived as different in the classroom may have been incentive to outgrow the need for them. Others just kept the visuals for home and not school. We must also acknowledge that some children faced far more serious and more complex issues than could be solved by visual supports. By the estimation of both their parents and teachers several children faced developmental delays that one would have expected to trigger significant support from the Ministry of Education specialists. These children, while certainly profiting from visual supports needed much more help than we were able to give them.

Relatedly, the challenges faced by most of the children in this project are not ones that can be overcome by a single intervention such as visuals over a relatively short period starting, in many instances, when children have already had several years of trailing behind their peers in school. The one or two cases where almost immediate success appeared to have happened were very much the exception. It was very sad, therefore, when it was reported to us that in some cases acceptance into our project was overtly coupled with withdrawal of other supports by a school.

On the teacher side of things, certainly some teachers embraced visuals more enthusiastically than others, and the best began using (or increased their use of) visuals for all the children in their class; thus avoiding any issues of a child being singled out. It is also important to recognise that visuals are only one of the tools available to both parents and teachers for supporting children. Teachers, in particular, have other resources at their disposal, including teacher aide support, learning buddy systems, and computer resources. Visuals are simply another tool in the teacher's toolbox; but if they can be used to keep children sufficiently on track that those other resources can be more effectively used, then this is worthwhile. And, as one SENCO suggested that it is important that teachers are able to think through how visuals can be incorporated into the culture of their classroom and find a good match with how they are presented, displayed and used.

Even when a teacher did embrace the visuals, we found that it was important to reconnect with children and their teachers at the beginning of every school year (after the summer break), whether or not a child had changed classrooms. And obviously, whenever a teacher changed, we needed to make sure that the new teacher was on board with the visual supports. The best situations were where a teacher took it upon her/himself to hand over to a colleague, explain the project and provide the background on the child's needs.

Finally, we found that the liaison work carried out by the VRS was often as important as the visual support work, or maybe more so. The role of the VRS in helping the child connect their home and school environments and draw the adults in each together helped facilitate a joint understanding of the child and their needs on the part of both parents and teachers.

Don't take our word for it: An independent evaluation of the project

The Wayne Francis Charitable Trust invested significant resources in the project described in this report. It was therefore important that there be an

independent evaluation of the success or otherwise of the intervention we provided. The J R McKenzie Trust funded the evaluation which was carried out in parallel with the project by the Donald Beasley Institute in Dunedin. Their evaluation was qualitative, using interviews and other feedback from parents, teachers and project personnel. The following quotations are from the Executive Summary of their report (Mirfin-Veitch and Paris 2013):

“Parents were very satisfied with the level of support that they had received within the [project], particularly from their child’s Family Liaison Worker [called Visual Resource Specialist in this report]. Parents felt that the FLWs had understood the difficulties their children faced and had the requisite knowledge and commitment to ensure the visual resources were appropriate and effective. Additionally, many parents noted significant and important changes in their child with regard to both home and school. Of note, changes were described in the areas of increased independence, increased confidence and reduced anxiety”.

For their part, the teachers who embraced the project reported “improvements in students’ independent learning, confidence and ability to organize themselves to complete tasks....Several teachers were particularly supportive of the [VRS] role, valuing the time that was spent in the classroom and the assistance with communication between home and school. Overall, there was good support for the project from participating teachers.”

Conclusions

While there is more information still to be gleaned from this project data, we feel reasonably confident in drawing the following conclusions:

- Children who use visual schedules to organise themselves before coming to school generally arrive at school calmer and more prepared for the day’s learning.
- Teachers who integrate visual supports for all children in their class find that all children are better regulated and more able to follow the classroom plans.
- Visual supports cannot be just given to a child at school or at home: they need to be actively integrated into the home and classroom and children must be overtly taught how to use them and be encouraged to use them consistently.
- Routines of both home and school can be supported by visuals allowing activities and events to happen, and in the right order, without anxiety or conflict.
- Parents and teachers who embrace visuals can learn to create new ones themselves as needed, once they have understood the principles.
- Children can become enthusiastic about their visuals and take pride in using them, and even designing new ones for additional situations themselves (e.g., a holiday programme).

- Some children can reduce or eliminate their use of visuals successfully and appropriately; others need to keep them in reserve, to support their independence when things get tough.
- Visuals can be adapted for different age groups (size, colours, written lists, whiteboard organiser, tags on bags, folders, strips on desk, etc.)
- Successful implementation of visuals for a child requires the agency of a person who is neither the parent nor the teacher, and who can look carefully at the challenges of home and school and provide the visual supports in the two contexts with input from professionals trained in their use.

Last word: A challenge worth facing

Finally, it is important to recognise that there is a cost in time and effort in implementing a visual support system in a school or in a home. In both environments it takes patience and an understanding of what the visual supports can do for a child. As Wellington and Stackhouse (Wellington and Stackhouse 2011) note,

"Children with a range of special needs benefit from the introduction of visual support in the classroom...[and] for visual support use to be sustained, teacher need to understand its rationale; how to use it within a class; and that it allows them to access what a child has learned. Without this knowledge, initial enthusiasm for using visual support in the classroom can be shortlived" (p. 185)

We agree and would add only that the understanding and support must extend to the very top levels of the school and education support structures. Buy-in from principals, boards of trustees, SENCOs, department heads, administrative staff and families (as well as from Ministry of Education specialists) will ensure that it becomes integrated into the culture of a school and a key part of the induction of all new staff.

For any school interested in implementing a visual support programme, we have developed a short booklet detailing the considerations that are involved in organising and costing such a programme.

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