

# Integrating Functional Assessment with Strengths-Based Approaches: A Case Study

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## Abstract

Educational Psychologists frequently employ functional assessment to assess the challenging behaviours of young people with severe learning disabilities. Yet practical limitations can result in an over-reliance on descriptive approaches and prevent emphasis being placed on what is already working well. This exploratory case study demonstrates how a functional assessment can be combined with current strengths-based approaches to form an integrated assessment framework for assessing and addressing the challenging behaviour of young people with severe learning disabilities. The outcomes of the case study are evaluated and conclusions are discussed in relation to the limitations of the study, avenues for further research and implications for practice.

**Key words**— Challenging Behaviour; Severe Learning Disabilities; Positive Behaviour Support; Functional Assessment; Strengths-Based Approaches; Video Feedback; Video Interactive Guidance (VIG); Solution-Focused Approaches

## Introduction

Since behaviourism came to prevalence in the 1970s, Educational Psychologists (EPs) have employed behaviourally-based approaches as one method of assessing the challenging behaviours of children and young people with severe and profound learning disabilities. The aim of Functional Behavioural Assessment (FBA) is to identify causes for presenting behaviours (Emerson, 2001) and to inform interventions which either attempt to provide replacement behaviours or find

a more appropriate means for a pupil to communicate their needs. This aim is usually achieved by gathering and analysing data about the young person and their environment. Yet, practical constraints, such as limited time, and the difficulty of setting up controlled experimental conditions in a classroom can prevent thorough analysis (Iwata and Dozier, 2008). This results in EPs being reliant on observational and descriptive approaches, the outcomes of which may show poor correlation when completed by different people (Thomson and Iwata, 2007).

Although an aim of a functional assessment is to change a pupil's situation for the better, the assessment focuses primarily on challenging behaviour and on what is *not* working for the pupil. This differs from current strengths-based approaches prevalent in educational psychology in the UK which place more emphasis on the development of exceptions to challenging behaviour. For example, the use of Video Interactive Guidance (VIG), initially used by EPs to enhance positive interactions between parents and young children (Strathie and Forsyth, 2011), can also be used to enable staff to reflect on the elements of their interactions that are successful. In addition, the use of 'solution-focused' language (Rhodes and Ajmal, 1995) can help staff to focus on pupils' strengths whilst empowering them to generate solutions to challenging behaviours.

There is a growing number of small-scale studies demonstrating the application of video-enabled or VIG approaches in schools and nurseries (e.g. Forsyth and Sked, 2008; Hayes, Richardson, Hindle and Grayson, 2014) as well as studies exploring the application of solution-focused approaches to work with staff in mainstream schools (e.g. Redpath and Harker, 1999 and Alexander and

Sked, 2010). However, a literature review undertaken in January, 2016 using the electronic databases: Education Information Resource Clearing House (ERIC) and American Psychological Association (APA) PsychNET returned no examples of the use of these approaches with school staff working with pupils with learning disabilities.

This case study demonstrates how an EP integrated functional assessment with the use of video and solution-focused approaches to assess and address the challenging behaviours of a pupil with severe learning disabilities. A framework for assessment is proposed which involves all those who are working to support a pupil and ensures that interventions focus on not only addressing challenging behaviours but also on developing pupil's strengths and positive staff-pupil interactions.

## Functional Assessment

Emerson defined the challenging behaviour of people with severe and profound learning difficulties as 'culturally abnormal behaviour of such an intensity, frequency and duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit the use of, or result in the person being denied access to, ordinary community facilities.' (Emerson and Bromley, 1995, p7.) In his revision of the definition, Emerson (2001) acknowledged that the extent to which a behaviour is termed 'challenging' is dependent upon the social context in which it occurs. In a school setting, where behaviour is governed by explicit rules, the demonstration of challenging behaviours often leads to teachers requesting support from an EP.

EPs have typically adopted behaviourally-based approaches to assessment and intervention which have been effective in reducing challenging behaviour (Hanley, Iwata and McCord, 2003.) Applied Behaviour Analysis views challenging behaviour as something that is influenced and maintained by environmental factors. The environmentally-based consequences which shape or maintain behaviours are termed 'reinforcers.' After a target behaviour is identified, (e.g. the behaviour that, if reduced, would have the most positive impact) a functional assessment is under-

taken to define the function that the behaviour serves for the pupil and to identify the environmental influences which maintain it. This assessment leads to a formulation which, in turn, informs interventions which aim to alter environmental factors and modify behaviours so that they are deemed to be more socially appropriate to a given context. A functional analysis may include experimental, descriptive and observational approaches.

Experimental functional analysis involves the demonstration, through the manipulation of environmental conditions, of the reinforcer of the challenging behaviour. This approach can be applied rigorously when undertaking research since control can be exerted over experimental conditions and confounding influences can be minimised (Iwata and Dozier, 2008). However, for the practising EP, it can be challenging to control confounding variables in school settings and, without sufficient time to conduct such an analysis, it may be difficult to discern the differing functions of similar behaviours.

Because of these limitations, EPs are more reliant on observational and descriptive approaches. The psychologist observes the pupil in different environments in school in an attempt to discern the function of the identified challenging behaviour. To ensure that the assessment includes the perspectives of others, staff may be asked to complete an ABC (Antecedent, Behaviour, Consequence) chart. This involves recording a sample of antecedent conditions (A), the target challenging behaviour (B) and consequent events (C). Lalli, Browder, Mace and Brown (1993) suggest that ABC charts can provide hypotheses about the frequency and function of the challenging behaviour in the environmental contexts in which it occurs. Since hypotheses are more likely to be confirmed if similar results are obtained from several assessment methods, descriptive functional analyses, including structured and semi-structured interviews, may be employed to obtain further information from key informants. Durand and Crimmins (1988) developed the Motivation Assessment Scale (MAS), a 16-item questionnaire which assesses the functional significance of a behaviour along the dimensions of escape, sensory, social attention and tangible rewards. They report 100 percent correspondence between MAS

results and more detailed functional analyses of self-injury shown by a group of pupils. However, other studies have questioned the reliability of the MAS (Desrochers, Hile and Williams-Moseley, 1997) and shown a weaker correlation between the results of a MAS and more detailed experimental and descriptive functional analyses (Emerson and Bromley, 1995).

The feasibility of undertaking a functional assessment in a school setting is questionable, due to the level of expertise needed to ensure procedural fidelity (Crawford, Brockel, Schauss, and Miltenberger, 1992). Furthermore, the limited reliability of information collected from descriptive approaches means that the reinforcers for behaviours may remain unclear. When the same behaviours are not sufficiently analysed in order to discern their different functions, it may be difficult to implement an accurately-targeted intervention.

Since the emergence of positive behavioural support in the late 1990s, (Koegal, Koegal and Dunlap, 1996), behavioural approaches have placed greater emphasis upon increasing existing positive behaviours (Carr, Levin, McConnachie, Carlson, Kemp, and Smith, 1994). This approach accords with the constructionist paradigm and strengths-based approaches currently prevalent in educational psychology. The constructionist approach looks for solutions to problems in the 'construction of repertoires' rather than the elimination of repertoires. Thus, in addition to identifying the function of the pupil's challenging behaviours, assessment should also aim to evaluate the range of skills and competencies the pupil possesses (Carr et al., 1994) and to identify the pupil's motivators with regard to potential alternative activities. If the reinforcers maintaining the challenging behaviour remain unclear after functional assessment, the identification of preferred activities assumes a greater significance. The most recent definition of positive behaviour support highlights the importance of 'including the perspectives of all those involved' and 'using this information to develop, implement and evaluate a personalised support plan which also aims to enhance the quality of life for the person and other key people.' (Gore et. al., 2013).

In order to achieve a comprehensive assessment which informs positive behaviour strategies, it is

proposed that functional assessment can be used in combination with strengths-based approaches.

## **Video Feedback Interventions and Video Interactive Guidance**

Video feedback interventions have been used widely amongst professionals as a means of increasing adults' communication skills. There are a number of different models although there has been a general move from the use of videotape for self-analysis (Hargie, Saunders, and Dickson, 1983; Hosford, 1980) to interventions in which positive video clips are followed by other forms of instruction such as modelling, further guidance or role play (e.g. Tripp and Rich, 2012; Roter, et al., 2004).

Tripp and Rich (2012) aimed to gain an in-depth understanding of how video analysis influences the process of teacher change. Teachers in three different teaching environments participated in video-reflection groups throughout the course of an academic term. Qualitative research methods were used to better understand the ways in which video analysis helped the teachers change their teaching practices. They found that teachers: focused on key aspects of their practice; gained new perspectives; felt confident in the feedback they received; felt accountable; remembered what changes to implement, and were able to see the progress that they had made.

Fukkink, Trienekens and Kramer (2011) conducted a meta-analysis of studies carried out between 1973-2009 as a means of establishing the effect of video feedback interventions on the interaction skills of professionals. The study found video feedback to be effective in improving professionals' receptive skills (e.g. asking open questions; looking at the other person), verbal skills (e.g. the content of what is said) and informative skills (e.g. speaking calmly; explaining things in a clear way) in professional contexts. It should be noted that both non-verbal behaviours (such as gesture and body posture) and relational skills (such as showing empathy or asking questions about the other) appeared less easily influenced. VIG is one of a group of video feedback interventions that has been used predominantly with families to structure therapeutic intervention. The facilitator takes video footage, often of interac-

tion between a mother and her infant and then edits the footage by selecting short clips which show interaction which is consistent with a 'attunement principles' (Kennedy and Sked, 2008). This selected footage forms the basis of a feedback session, during which the mother is guided to reflect on short video clips of her own successful interactions, often with a child. The facilitator actively engages those involved in a process of change (Kennedy, Lander and Todd, 2011). VIG was first described in educational psychology practice over fifteen years ago (e.g. Kaye, Forsythe and Simpson 2000). Yet, to date, there is only a small number of small scale studies to demonstrate its efficacy when used to promote positive interaction between staff and pupils. Kennedy and Sked (2008) report an evaluation of a VIG intervention with non-teaching staff in a school for children with autistic spectrum disorders (ASD) in the UK. Support assistants working with six pupils with ASD took part in four feedback sessions focusing on changes in the staff-pupil interaction during the course of the intervention. Findings showed that the number of adult verbalisations initially fell and pupil verbalisations increased. These changes were related to an increase in independent observer ratings of attunement. In a similar study, Hayes et. al. (2011), used VIG to promote the skills of ten non-teaching staff in positive behaviour management in a secondary school. A focus group following the intervention suggested a positive impact on the skills and confidence of individual staff to support pupils. Forsyth and Sked (2008), in their description of the use of VIG when working with children and adults on the autistic spectrum disorder, highlight the effectiveness of VIG in shaping behaviour and helping to develop attuned interactions between a pre-school child with autism and nursery staff. In a subsequent study (Forsyth and Sked, 2011), an EP used VIG when working with staff to develop a behaviour plan for a young girl with autism. The EP videoed the girl in the nursery setting, looking for patterns of positive interaction between the child and staff. These clips were then shared with nursery staff to enable them to identify the strategies that they were using to facilitate the girl's engagement. Early research on VIG has been promising and

indicates that the approach can be an effective intervention for staff working with pupils with learning disabilities and behaviour problems. Caldwell (2006) proposes that the use of video can be beneficial in noting significant behaviours overlooked in an interactive session. Happe (1999) suggests that it may be more advantageous to focus on developing the strengths of a child or young person with autism, rather than things which they do not do well. This suggests that the use of a video may have two key functions when assessing pupils' behaviours; video makes it possible to analyse the behaviours on a second-by-second basis whilst a VIG approach enables staff to identify positive interactions and to build on these.

### Solution-Focused Approaches

Solution-focused approaches in educational psychology practice are derived from solution-focused therapy, a 'strengths-based' model originally developed at the Brief Family Therapy Centre in Wisconsin by Steven de Shazer (De Shazer, 1985), and Insoo Kim Berg (Berg and Dejong, 1996). Solution-focused therapists use a set of behaviourally and cognitively orientated therapy techniques to increase positive behaviours building on 'exceptions' – (times when the identified 'problem' is not present) and to develop the use of effective coping strategies. The focus is on changing future behaviours, empowering the client to generate their own solutions.

Rhodes and Ajmal (1995) list a number of specific linguistic techniques which can be used with pupils in schools. These include: problem-free talk; the exploration of 'exceptions'; rating scales; tasks and compliments. Such techniques have also been applied when working with teachers. The structure and techniques of solution-focused strategy meetings recommended by Redpath and Harker (1999) bring together teachers in order to identify strategies for dealing with a pupil who presents challenging behaviours. Rather than encouraging 'problem-talk', a focus on successful strategies and exceptions to the problem leads towards a joint construction of strategies to use in the classroom. Such meetings aim to promote a 'competency-based' view of the pupil and serve to empower all those involved in the process. As

yet, there does not appear to be any literature which evidences how such meetings can be employed when working with school staff to address the challenging behaviours of pupils with learning disabilities.

## Proposed Framework for Assessment

Following the review of literature, a new integrated assessment framework was developed. The proposed framework incorporates functional analyses (observational and descriptive approaches) with strengths-based approaches (solution-focused approaches and approaches consistent with the principles of VIG) to assess and address the challenging behaviours of pupils with severe learning difficulties.

The use of video and solution-focused approaches adds further information to a functional assessment of behaviour most amenable to change by highlighting existing strengths, 'exceptions' and examples of positive staff-pupil interaction. It was hypothesised that, by using solution-focused language in conjunction with an analysis of positive video clips, teachers would incur a 'competency-based view' of the pupil and that there will be greater collaboration and joint understanding between staff members and parents. The integrated framework was also designed to take into account pragmatic considerations such as the limited time allocations of EPs.

The proposed framework could be construed as advocating the use of two conflicting theoretical approaches: functional analysis - which is underpinned by behaviourist psychology and advocates rigorous problem analysis - and strengths-based approaches which focus on identifying 'exceptions', finding solutions and developing positive interactions. However, recent behavioural approaches (e.g. Gore, McGill, Toogood, Allen, Hughes, Baker and Denne, 2013) have emphasised the importance of taking a positive approach to behavioural support by empowering those who work with a child or young person. The use of solution-focused approaches within this framework engages staff in problem-solving analysis prior to the generation of solutions and acknowl-

edges that an understanding of the problem is an important component in the process of change (O' Hanlon, 2010.) Combining the two approaches ensures that a functional assessment of the 'problem' behaviour does not lead to inadvertent promotion of a deficit model.

The four key stages of the proposed framework are described below.

### Functional assessment

Initially, the EP conducts a functional assessment using observational and descriptive approaches in order to ascertain the frequency, intensity and duration of the identified challenging behaviour. They then draw initial hypotheses about the reasons for the behaviour. Observations of the pupil are conducted in different school contexts and staff contribute to the process through discussion or by completing appropriate assessment tools such as the Motivational Assessment Scale (Durand and Crimmins, 1998).

### Solution-focused staff meeting

A solution-focused meeting is then held with staff (employing solution-focused strategies as outlined by Harker and Redpath, 1999.) The meeting enables those working with the pupil to discuss the outcomes of the functional assessment and to explore exceptions and strategies which lead to a reduction in the challenging behaviour or which support the development of the pupil's communication and choice-making skills. The outcomes of the meeting are shared with all participants and absent staff. This promotes accountability and makes clear the EP's contribution to the process.

### Use of video and VIG principles

The use of video when conducting observations enables further analysis of the identified behaviour and serves to corroborate or contradict hypotheses generated from the functional assessment. The psychologist then presents short clips to staff and/or parents which demonstrate examples of positive staff-pupil interaction. These are used as a means of eliciting further information about the qualities of such interactions and contributing contextual factors.

## Creation of positive behaviour plan

Finally, information from the functional assessment, VIG session and solution-focused meeting is incorporated in a positive behaviour plan which highlights the identified reasons for the behaviour and aims to decrease the challenging behaviour whilst developing the pupil's communication. The plan details staff roles, strategies and interventions and information about the contexts in which they should be applied.

## Evaluation of the proposed framework

The framework was designed to help generate individualised plans to reduce target behaviours; promote the development of pupils' communication skills and develop and extend positive staff-pupil interactions. The purpose of this study was to explore the effectiveness of the proposed framework in achieving these aims.

## Design

Since this was an exploratory study, conducted by a practitioner-researcher (the EP) in a high school for young people with additional support needs, a single case study approach was adopted. Yin (2003) proposes the use of a case study approach to investigate phenomena within their real life context. Porter and Lacey (2005), in their guide for researching learning difficulties, also advocate a case study approach as a means of enabling practitioners to elicit rich data and as a way of 'offering insights into the world of learning disabilities that is hard to achieve in any other way' (Porter and Lacey, 2005; p115). In this study, it was expected that the combination of behaviourist and strengths-based methods would provide a more robust assessment of the behaviour, carried out within a limited time frame.

## Participant

The focus of this case study was a 15 year old pupil in an ASN (additional support needs) high school in Scotland, henceforth referred to using the pseudonym 'Tom'. Tom has cerebral palsy

and an autism diagnosis. After a sustained period of illness, he was using a wheelchair and his level of activity had been significantly affected by his physical health. Tom attended a base class in the 'severe and complex' department within the school. This meant that he had the same class teacher for the majority of the day, but also attended Home Economics, Music and Science lessons in different areas of the school. Tom attended whole school activities such as assemblies and liked being in the yard during break times. Although Tom had contact with a number of support assistants throughout the day, he was mainly supported by the same two members of support staff who accompanied him to his base lessons and to his other subject lessons.

At the beginning of the school term in August 2013, staff reported that Tom was showing an increased level of agitation and frequent 'hitting out' with his hands at pupils, staff and hard surfaces. This was judged to be the most significant challenging behaviour. Since the behaviour was preventing Tom from actively engaging in activities throughout the school day and since a number of adults were involved in supporting him it was judged to be appropriate to use the proposed framework as a means of establishing reasons for the behaviour.

## Ethical considerations

The use of video-enabled practice with staff and pupils in a school needs to be conducted sensitively and with regard to ethical standards. Because of the extent of Tom's severe learning difficulties, it was not possible to obtain his consent in a conventional manner. However, Tom and the other young people in the class were accustomed to staff in the classroom using iPads. Since staff had a knowledge of Tom's means of communication and how he indicated his dislikes, they were sensitive to the employment of the video and how he could potentially respond to this. Tom's mother had already given signed consent for Tom to be videoed in school for educational purposes. She was then telephoned and asked if positive clips of Tom could be shared and discussed with key staff and shared with a wider audience as a means of explaining the proposed integrated framework to other professionals. Staff also gave

their consent to be recorded and for the video to be used as part of a wider discussion. Tom's parent and key staff members agreed that the outcomes of the functional assessment and VIG session could be discussed with key staff at the solution-focused meeting for the purpose of contributing to an assessment of the behaviours and informing an individualised behaviour plan.

## Data Collection and Analysis

Data was gathered through functional assessment; a solution-focussed meeting and the use of video-enabled practice. Further information about each method of data collection is provided below:

### Functional Assessment

Three observations were completed, lasting between 30 and 45 minutes, in three different settings: the hall, the base classroom and the Home Economics room. Data was recorded using a running commentary.

Further information was collected from the teacher and two members of support staff using Antecedent Behaviour Consequence sheets and through use of the Motivation Assessment Scale (MAS) (Durand and Crimmins, 1998).

The MAS was completed by Tom's teacher and two members of the support staff as a means of clarifying the reasons for the identified behaviour. Staff responded to the 16 questions about Tom's behaviour using a 0-6 rating scale (where 0 indicated 'Never' and 6 indicated 'Always'). Mean scores were then calculated for each of the MAS's four subscales (escape, sensory, social attention and tangible rewards) and rank ordered. Two functions were identified as primary (social attention and sensory feedback). Information from the MAS was analysed alongside qualitative information obtained from observations, ABC charts and video clips and shared with key school staff.

### Solution-Focused Staff Meeting

The solution-focused staff meeting involved the teachers and support staff working with Tom and was facilitated by the EP. The meeting followed the structure and techniques of solution-focused strategy meetings as recommended by Redpath

and Harker (1999). The aim of the meeting was to clarify the precise nature of the challenging behaviour, whilst ensuring that existing strategies and contexts which led to reductions in the behaviour were identified. Each section was time-limited in order to prevent staff from adopting 'circular-thinking' and becoming problem-focused (Wagner, 1987).

The first section of the meeting enabled staff to clearly define the target behaviour; clarify its frequency and intensity and consider the impact of environmental factors. The main focus of the remainder of the meeting was on those strategies which were already working and on 'exceptions': times when Tom did not engage in the challenging behaviour. Throughout the meeting, the EP employed active 'solution-focused listening skills' (Redpath and Harker, 1999) and solution-focused language and techniques (Rhodes and Ajmal, 1995). The process led towards a joint construction of strategies which were incorporated into the final behaviour plan. Table 1 details the information that was discussed and collated during the meeting and then shared with all staff working with Tom.

### The Use of Video-Enabled Practice

The EP employed video to reflect further on the intensity and function of the behaviours observed. For example, when Tom was not actively engaged in group activities, the intensity and frequency of the hitting out behaviours increased. However, the hitting out behaviours also increased each time he was seated near a hard surface such as a table.

In accordance with the principles of VIG, the psychologist isolated brief clips which evidenced positive staff-pupil interactions (Kennedy, 2011). These were highlighted to staff and to Tom's mother during a discussion session. It should be noted that although the EP had received initial training in VIG, she was not a fully trained VIG practitioner.

The clips included Tom responding to instructions given in a low voice; when Tom was on the standing frame and when he was accessing individual activities in the quiet room with his teacher. More typically, VIG video clips are shared with parents who then reflect on what they are doing

<b>Discussion Topic</b>	<b>Key Points Discussed</b>
<b>Behaviour causing concern</b>	Hitting out at surfaces and others. Behaviours occur in all settings. Frequency depends on others' proximity. Behaviours are worse in noisier environments. Behaviours often occur when Tom is approached from behind or when the teacher is addressing a larger group.
<b>Times when the situation is better</b>	In quieter environments. When he is actively engaged in an activity. When he is out of his chair and able to move around. When he is working with support assistant E.
<b>Strategies already working</b>	Prepare Tom for an event or change by explaining what is going to happen. Speak to him in a low voice. Use short statements and allow waiting time.
<b>New strategies</b>	All staff to use same communication methods: stand to the left of Tom; speak in low voice; ask him to make choices using symbols. Plan a functional communication intervention. This will focus on encouraging Tom to use visuals to indicate that he wishes to use the standing frame or to have a break from the group. Prompts will be faded over time. Build in more time for Tom to be in standing frame and to move around the school

Table 1: Information gathered in solution-focused staff meeting

that makes this interaction go well. In this situation, the staff present commented on what they were doing well and how Tom was responding. Tom's mother, too, was provided with instances of Tom engaging and gave further examples of positive interactions outside of school. The EP employed techniques adapted from 'the seven steps to attuned interaction and guidance' (Kennedy, p30, in Kennedy, Landor and Todd, 2011) when working with staff to develop attuned interactions with Tom.

## Outcomes of the Assessment

The contribution of Tom's mother and school staff supplemented findings from the EP's functional assessment and indicated that Tom may be hitting out to:

- gain social attention from a staff member;
- avoid taking part in a group activity;
- obtain sensory feedback from a hard surface and
- when activities did not enable him to make a choice.

Since all those working with Tom had been involved in the assessment process, it was possible to ascertain environmental influences on the frequency and intensity of the hitting out behaviours. For example, the behaviours increased in the Home Economics room where the strategies used did not enable him to be as actively involved in communicating preferences. The behaviours also increased when he was unable to be involved in moving himself around the room. The solution-focused meeting and the use of video also highlighted existing strategies that were working and ensured that further emphasis would be placed on the development of Tom's communication skills and independence. Both new and existing strategies were included in the final behaviour plan which was written after consultation with all those involved.



## Evaluation of the behaviour plan

Anecdotal evidence was collected throughout the implementation of the behaviour plan. Tom's mother reported that she was pleased that staff had an understanding of her son's strengths and of the times when he worked well. Staff reported that they felt actively involved in the process and had a better understanding of Tom's needs as a result of the solution-focused staff meeting. They described feeling 'empowered' as a result. At an informal review meeting ten weeks after the implementation of the behaviour plan, all those working with Tom reported reduced hitting out, increased mobility, active involvement in gym sessions, and increased use of symbols to make choices and to request a break.

In March 2014, the teacher and two members of support staff were asked to contribute to an evaluation of Tom's behaviour and to rate 5 statements from 4 (Strongly Agree) to 1 (Completely Disagree):

1. I enjoy working with the pupil.
2. The pupil is better able to communicate his needs.
3. There has been a reduction on the identified behaviours.
4. The pupil has had a positive year.
5. The assessment has been useful.

For each of the first 4 statements, one member of support staff responded 'Strongly Agree' and the teacher and the second support assistant responded 'Agree.' For statement 5, both the teacher and one support assistant responded 'Strongly Agree'. The second support assistant responded 'Agree.'

Qualitative comments corroborated the positive scores (all agree/strongly agree) and suggested a reduction in challenging behaviour and the development of new skills:

- 'He has had a good year after a difficult start.'
- 'It can still be difficult to tell why but the behaviour has reduced'

- 'You can get good work from him and good interaction'
- 'He demonstrates more control over his choices; lunch and physical activities- which has made a big difference.'
- 'His individualised curriculum has worked; he has more variety'

Positive changes in staff were also evident:

- 'I have got to know him better'
- 'This year has helped me learn strategies in order to teach him more effectively and purposefully'
- 'I enjoy working with him'

## Discussion

Initial findings suggest that the proposed integrated assessment provided an effective and practical means of assessing and addressing challenging behaviour which fits within a framework of positive behaviour support. Descriptive analyses indicated a reduction in the challenging behaviour and the development of the pupil's communication skills. This was noted at a review meeting in December, 2013 and also in questionnaires completed by staff in the Spring Term of 2014. Since initial analysis involved only 3 members of school staff (class teacher and two support assistants), it was acknowledged that conclusions drawn at this stage were tentative and that Tom's behaviour and communication skills would continue to be monitored and reviewed on an ongoing basis. However, staff also reported a better understanding of the reasons for the behaviours and how to address them.

A case study approach enabled practitioner-lead research within a real life setting. However, practical constraints associated with school-based research limited the number of observations and the opportunity to work more closely with parents and the staff group. As a result, the study should be considered illuminative. A more rigorous design which includes the collection of quantitative data on the reduction in the identified behaviour

is needed to clarify the functional relationship between the assessment, intervention and behaviour change. Further evaluation should also attempt to establish the impact of solution-focused approaches on staff perceptions of pupils' behaviour. Although the functional communication intervention was implemented, staff did not document the number of trials carried out. This highlights the difficulty of closely monitoring the impact of an intervention in a busy school setting and suggests that more training and coaching may have been needed to ensure that staff had an understanding of the principles behind interventions and how they should be implemented.

The study provides further evidence of the effectiveness of video when completing a time-limited functional assessment. Video footage enabled a richer analysis of behaviour which would not have been possible through classroom observations alone. Iwata and Dozier (2008) advocate the use of 'single function tests' when a functional assessment is limited by time constraints. If observational data strongly suggest a particular source of maintenance for behaviour, an abbreviated functional assessment may comprise of setting up a test condition versus a control. This suggests that further application of the proposed integrated assessment framework should incorporate video footage of single-function tests as a means of furthering the validity of the functional assessment. The use of a video feedback approach akin to that used in VIG enabled discussion about exceptions to the challenging behaviour and positive interactions between Tom and staff. This ensured that the resultant behaviour plan included strategies which focused on the development of Tom's interaction skills and on staff using appropriate means of communication when working with Tom. In accordance with the principles of VIG, further analysis of new video clips of Tom in the classroom environment would enable an evaluation of progress and allow further monitoring of the development of Tom's communication skills (Kennedy, 2011). When used in schools, previous small scale studies on the application of VIG have demonstrated changes in staff perceptions about their interactions with pupils (Hayes, Richardson, Hindle and Grayson, 2011). The monitoring and review period would provide the opportunity to ascertain if changes in the perceptions of staff

had directly influenced the quality of interactions between staff and Tom.

Although VIG has been used to develop social interaction with children with autism (Forsyth and Sked, 2011) there is as yet a paucity of literature on the application of video and VIG approaches when working to address the behaviours of other children and young people with severe and profound learning disabilities. Similarly, a review of the solution-focused literature highlighted that there is as yet no reported evaluation of the use of solution-focused meetings with staff in the additional support needs sector. Instead, there is only evidence of the effectiveness of such meetings when staff are working to address the behaviours of mainstream pupils (Redpath and Harker, 1999; Murphy, 1997).

Since the initial outcomes of the case study are positive, the reliability of these findings can be increased with further detailed evaluations of this integrated framework for assessment. Future evaluations should focus on determining the outcomes for children and young people in terms of a decrease in challenging behaviours and the development of strengths and positive interactions. This may include the recording of target positive and negative behaviours in different contexts, both pre and post intervention and again at follow up. This would be consistent with the use of functional analysis and would help to generate more robust conclusions. Significantly, since the model emphasises the importance of involving stakeholders in the process, evaluations should also use qualitative methods to obtain the views of those involved and to ascertain the impact of adopting strengths-based approaches for both staff and parents.

## Conclusion

For EPs, assessing and addressing the behaviours of pupils with severe learning disabilities is limited by constraints on time and feasibility of setting up experimental conditions in a school setting. The use of descriptive functional assessment methods alone may also exclude some staff working with the pupil and can lead to an emphasis on a pupil's difficulties. This case study provides initial data about the positive impact of a frame-

work for assessment which integrates the use of functional assessment with strengths-based approaches and contains many of the components of positive behaviour support, such as commitment to the collaborative problem-solving process, parental involvement and the use of empirically supported interventions. In the absence of studies of the effectiveness of VIG and solution-focused approaches in schools, case study data and consultation with parents and teachers can inform decisions regarding assessment and evidence-based intervention strategies. This study furthers the case for integrating strengths-based approaches within a framework of positive behaviour support and provides direction for more rigorous investigations of the assessment model.

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