

# **The role of repetitive questioning in a pupil with visual impairment and autism**

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This article is based on an investigation Tim Kehoe undertook for an assignment during his studies at the University of Birmingham to become a Qualified Teacher of the Visually Impaired (2009 -2011).

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## Introduction

This article reports an investigation into the repetitive questioning behaviour of a 10 year old male pupil. This pupil (A) has Leber's Congenital Amaurosis with minimal light perception. He was diagnosed with an Autistic Spectrum Disorder (ASD) at the age of seven. A is educated at an all age (3 to 19 years) Special School, based in the south of England. The school supports pupils with moderate to severe learning disabilities. It also has a specialist Sensory Resource Base that caters for pupils who have additional sensory needs as well as learning disabilities. At the time of the study, A was educated in a class of 10 pupils with a range of learning disabilities, who were taught by two part time teachers and three classroom assistants. He was also supported by a 1:1 assistant who enabled him to participate in classroom activities. A also had regular sessions with me and two specially trained assistants from the school's Sensory Resource Base. These sessions covered elements of the additional curriculum for a visually impaired pupil such as tactile reading, mobility, touch typing, and the development of social skills.

The area that I decided to study was the questioning behaviour that A regularly exhibited. At the time of the study, I had worked with this pupil for the previous two academic years and in that time I had noticed that he tended to ask a range of repetitive questions. These questions were in general related to:

- the time
- what activities he would be engaged in next
- which members of staff he would be working with during an activity.

Asking such questions may in itself be normal behaviour for a child but A had a tendency to constantly repeat these questions. Also, even after receiving an answer to one of these questions he would often continue to repeat it to the person he was talking to. The purpose of my investigation was to attempt to discover when and where this behaviour displayed itself the most and if there appeared to be any particular purpose for the pupil in carrying out this behaviour.

I was also particularly interested in studying the behaviour of this pupil as prior to beginning my studies to become a Qualified Teacher of the Visually Impaired, I had a background in working with children and young

people with ASD. In studying aspects of visual impairment I began to notice that some children in this group exhibit characteristics similar to those of sighted autistic children, especially with regard to social and emotional understanding. In carrying out this study I hoped to gain a greater knowledge of how to support A to promote further development in these two areas.

## Literature Review

Prior to studying the behaviour exhibited I reviewed the academic literature in two specific areas to inform the contents of my project. I focused on literature that

- discusses the interplay of a visual impairment and ASD and how this can affect a child's development
- examines the development of language in children with visual impairments.

Many writers and researchers (Cass et al., 1994; Dale & Sonsken, 2002; Hobson & Bishop, 2003; Andrews & Wyver, 2005; Mukkades et al., 2007; Dale & Salt, 2008) have covered the similarities between children with congenital visual impairment and ASD and the instances where children have both disabilities. In studying this area the majority of researchers begin with the premise that severe visual impairment will affect a child's development, as Cass et al. note:

*Adverse developmental outcome has long been recognised as a complication of severe visual impairment. (Cass et al., 1994; p.192)*

What appears to be difficult is defining the root cause of the link between visual impairment and autistic like tendencies. In introducing this topic, Mukkades et al. (2007) describe the two contrasting areas that researchers focus on:

- that common organic aetiological factors lead to blindness and autism
- conversely the belief that it is not the cause of blindness itself that leads to developmental setback but the fact that the social consequences of being blind can lead to a child displaying autistic like tendencies.

In this instance it would appear that children are more likely to display autistic like tendencies if they have a visual impairment that is linked to a neurological cause such as Leber's Congenital Amaurosis.

However, the role that lack of vision may play in causing developmental delays should not be ignored. In fact, the lack of vision may compound the neurological features found in some children with visual impairments, leading to autistic like tendencies. Dale and Salt (2008) discuss the way in which sighted infants use visual behaviours such as eye contact and joint attention to initiate and continue social interaction. They also argue that these behaviours can then play a fundamental role in the development of social communication and language. So if a child does not have the requisite vision for these visual activities it would seem almost certain that they would suffer some form of developmental delay in the areas of social language and communication.

The ways in which a visual impairment will affect language development are central to my investigation of repetitive questioning behaviour. When referring to children who are autistic (either blind or sighted), Andrews and Wyver (2005) note the fact that these children:

*... frequently exhibit echolalia and display problems with pragmatic features of conversation like topic switching and initiating conversations. (Andrews & Wyver, 2005; p.55)*

Language acquisition can be a difficult process for visually impaired children, even for those not considered to display autistic like features. Difficulties in understanding the social use of language may well begin in infancy for visually impaired children. Warren (1994) cites the work of Wills, who argues that visually impaired children can find it difficult to understand that they can use language to elicit specific responses from parents. This is partly due to the visually impaired child and the parent having a depleted mutual perception of the world; thus, the child is unable to see an item and then to use eye gaze to request it from the parents. This difficulty can be compounded when the child does develop language if parents and teachers begin to pre-empt what the child wants / needs, thus preventing the child from understanding that he / she can have an impact on the world through language.

It is also important to consider the communicative role that repetitive language will take for the visually impaired or autistic child. In discussing repetitive questioning in children with ASD, Bogdashina (2005) states

that a question may not be used to elicit information, but to maintain a predictable reaction. Bogdashina also refers to the work of an individual with ASD, Ros Blackburn, who gives various reasons for asking repetitive questions. These include, rather interestingly, for entertainment purposes but also, more significantly, she uses them to dodge a less pleasant or less predictable issue. Whilst this use of repetitive questioning can serve a purpose for the child with ASD, is this also the case for the visually impaired child? In discussing the use of stereotyped speech or verbal routines by blind children, Perez-Pereira & Conti-Ramsden (2005) suggest that these types of language production do seem to serve a variety of purposes for the child. These include to

- understand the context of where they are
- perform an appropriate action in a situation
- interact with other people.

This would then seem to indicate that the visually impaired child with ASD could use repetitive phrases or questions in a variety of situations for a number of communicative functions. In this project I aimed to discover the purpose of A's repetitive questions by observing him in a variety of situations.

## **Project Design and Methods**

In carrying out this project I had to decide upon the information that I was interested in collecting and how I would go gather this data. To begin to understand the behaviour I thought it necessary to break it down into several component parts and then attempt to carry out observations to document these. Discussions with several of the members of staff who work directly with this pupil and my own observations suggested several possible reasons for the behaviour:

- when in a new situation or one that made him anxious, A could be using the behaviour to provide comfort
- he could also be attempting to engage in simple social interactions

- he could also be trying to establish who was around him by using a series of stock phrases.

In order to investigate the patterns of this behaviour, I decided it was necessary to collect data to try and establish if any of these possible scenarios were possible causes for this behaviour.

To enable me to investigate these potential causes of the behaviour, I decided that I would carry out a series of observations of A in a selection of different settings. The main focus of these observations was on the type and intensity of questions he asked in these situations. I felt it important to conduct observations of A in a variety of different physical and social environments to establish if such factors played a part in the questioning behaviour. I also recorded the timing of the questioning behaviour, as I felt that if it took place at the start of an activity this might imply that the purpose of A's questioning was to enable him to establish who was supporting him during that session. I also observed whether the questions he asked had any relevance to the activity he was engaged in.

In choosing to use a form of participant observation, where I, the observer, was known to both A and the staff member he worked with, I realised there were a range of advantages and disadvantages that were particularly prevalent to this particular type of data collection.

An advantage of participant observation is that it enables the researcher to observe and analyse a wide variety of situations, partly due to the fact that there is no need for equipment or prior preparation (Robson, 2007). This was especially true in my case where I was able to observe A not only in his classroom but also in the school's swimming pool.

A significant disadvantage of participant observation is the potential effects that the presence of the observer can have on the events that are being observed. This issue is commonly referred to as 'reactivity' and is explored by Henn et al. (2006) when discussing research by Punch. Henn et al. report that whilst Punch conducted observations with the Amsterdam police force, it became clear that the police officers were modifying their behaviour in order to prevent him observing some of the ways they would normally carry out their daily activities. In the situation I was observing I felt that there was a potential for the staff working with A to modify their behaviour in several ways. For example, they might

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- attempt to include A more in lesson activities
- respond to his questioning behaviour differently either by responding to his questions more or less than they normally would.

I attempted to counter the potential for this occurring by keeping my presence as low key as possible and also attempting to hold observations as closely together as possible so the staff working with A became used to my presence and so would change their behaviour to a lesser extent. Also as I already worked regularly with A my presence was also an accepted part of the classroom social environment.

## **Results**

In total I carried out ten observations over a two week period. These observations lasted on average twenty four and a half minutes (mean average), the modal average being thirty minutes, with the longest observation being forty five minutes and the shortest being 10 minutes. The observations were evenly split between those that took place in a group setting and those that occurred in a 1:1 setting (although even during the group sessions the student was always accompanied by his 1:1 support worker; the main difference in these sessions was that the focus of work was not placed directly upon A himself).

In analysing the data I gained from the observations I wanted to see if there were any particular themes that appeared. To allow me to carry out this analysis I decided to focus on a number of variables to try and see if A's behaviour changed in different social and environmental situations. To allow me to do this I initially calculated the number of questions asked and then broke this down into the total for each type of question. In total A asked eighty five questions throughout the period of ten observations, with an average of eight and a half each session. However, it does have to be recognised that due to the difference in length of the sessions observed there is likely to be some skewing in the number of questions asked and the average gained. Interestingly, during one of the longer sessions (a group science lesson lasting thirty five minutes) he only asked four questions. The highest number of questions asked was 28 during a 1:1 computer session with a support worker from the Sensory Resource Base. During this session his regular 1:1 support worker was not present. There was one ten minute reading session during which A

did not ask any questions. In the sessions during which I recorded A, he only asked one question which appeared to be directly related to the session he was participating in: during an assembly where a planned trip to a school in Africa was discussed by two teachers, A asked “Where are they going?”.

A breakdown of the different types of questions A asked is provided in the following table:

| <b>Question type</b> | <b>Number A asked</b> |
|----------------------|-----------------------|
| “why” questions      | 16                    |
| “when” questions     | 2                     |
| “where” questions    | 38                    |
| “who” questions      | 4                     |
| “what” questions     | 19                    |
| “which” questions    | 6                     |
| Total                | 85                    |

I also looked at when A asked these questions. The results showed that the majority of questions (two thirds) were asked at the start of a session, with the rest being evenly distributed between the middle and end of a session. The results also showed that A asked about the whereabouts of people (always staff members) 27 times and asked questions related to time a total of 8 times.

One of the most interesting results was that the frequency of questioning greatly increased when the student was outside his classroom:

| <b>Location</b> | <b>Number of observations</b> | <b>Number of questions A asked</b> |
|-----------------|-------------------------------|------------------------------------|
| Own classroom   | 7                             | 80                                 |
| Other location  | 3                             | 5                                  |
| Total           | 10                            | 85                                 |



Another interesting result concerned the person A was working with, as shown in the following table:

| <b>Person supporting A</b> | <b>Number of observations</b> | <b>Number of questions A asked</b> | <b>Average number of questions per session</b> |
|----------------------------|-------------------------------|------------------------------------|--|
| Regular 1:1 support worker | 5                             | 11                                 | 3.6  |
| Other support worker *     | 5                             | 66                                 | 13.2   |

\* Either myself or an assistant from the Sensory Resource Base

The results focus on A's interactions with adults not because these are the only interactions of interest, but because these were A's only interactions. Not once during the ten observations did the student make a spontaneous remark to a peer or ask his classmates any questions.

## **Discussion**

The original stimulus for this project was the number of questions A asked related to time and the activity he was about to undertake. The results showed that A asked many fewer questions than originally expected. This could have several causes. Firstly, I may have simply overestimated the number of questions he would ask. However, several major changes had occurred in A's life in the period leading up to the observations. These may all have had an impact on his questioning behaviour. During the last year he had

- started working with a 1:1 support assistant
- changed classrooms from one specifically set up for pupils with ASD
- moved from attempting to learn braille to actually being able to read the Moon code.

My original thoughts were that A's questioning was related to anxiety and was a way of ensuring that he knew which adults were around to comfort

and protect him. This was especially true in his previous class where several of the other pupils often displayed erratic behaviour which he was unable to see. However, this behaviour often impacted on A as the other children would bump into him and throw objects in the classroom. A has now moved to a much more stable class group. His anxiety levels have reduced, presumably as a consequence. The introduction of a 1:1 support worker has also meant that A knows which adult he is going to be working with next and so does not need to ask. Also in learning to read the Moon code, A began to have access to a written daily timetable. This means he can be directed to his timetable when he needs to know which activity he is doing next.

However, despite these positive changes, the data collected from these observations do seem to indicate that A asks more questions in certain situations than in others. The most interesting of these are the number of questions he asks

- at the start of sessions
- when he is away from his classroom
- when he is away from his 1:1 support worker.

The questions he asks at the start of a session would appear to serve the direct purpose of enabling him to know who is around him and also to enable him to use a repertoire of relatively simple phrases to initiate simple social communication with those people. In discussing this topic Finello et al. (1992) note that whilst questioning can initially be an effective attention getter, follow up techniques must be developed.

There were two other situations in which the number of questions rose steeply: when A was away from classroom and when he was away from his 1:1 support worker. These appear to be linked to anxiety levels. A has become accustomed to being in a class where he feels secure and works with a regular member of staff. When these two constants are removed, A becomes anxious and asks more repetitive questions. This reliance on his regular 1:1 support worker became very evident when A was participating in a gym activity. A was attempting to use a stationary exercise bike for the first time and a less familiar assistant was supporting him to get on the bike and to turn the pedals. At one point during this activity A began to wobble on the seat and in very quick succession asked four times "Where's [name of regular support worker]?" This was despite the less familiar assistant being next to him all the time and talking him through the whole situation.

Using a dedicated 1:1 support worker does have advantages and disadvantages. A has made significant gains from this support, learning to read and appearing to be less anxious overall. However, A does appear to be over-reliant on this member of staff for reassurance and social contact. When discussing this issue, Gale (1998) cites Coolahan, who refers to the role of the teaching assistant (TA) as being to help the student achieve maximum independence and inclusion. Gale, however, goes on to recommend that:

*the TA must ensure that the student does not become dependent on him and he must strive to maintain the delicate balance between providing the much needed assistance and fostering the student's independence (Gale, 1998; p.86)*

This over-reliance on a staff member is an issue that will need to be addressed and more opportunities will need to be made to ensure that A is willing and able to interact with his peers. Roe (2008) argues that children with visual impairment need access to a wide range of peers to provide positive role models, but also so that they can have friends their own age rather than just being with their assistant all the time.

## **Conclusion and Recommendation**

In carrying out this project I felt very privileged to be able to spend more time than would normally be possible to observing one of my pupils in his class. I was very pleased to see that he had made significant progress and that a behaviour that I had once seen as possibly preventing interaction with his peer group appeared to be considerably diminished. However, at times of anxiety A reverts to a set of behaviours that provide him with a level of security. Clearly more work needs to be carried out with A to ensure that he feels more secure in a variety of social situations and that he is more able to interact with his peers. Since the observations were carried out, A has regularly attended a social skills group with a small selection of his peers and he is now able to

- introduce himself
- make a personal statement
- ask simple questions of the other students in the group.

This group has focused on developing greater self awareness and developing an understanding of different emotions. The eventual hope is that when A feels anxious or frightened in the future he will have a greater understanding of emotions and be more able to discuss them.

The use of a 1:1 support worker is an issue that will also need to be explored and whilst A has drawn great benefits from this support, his staff team now need to think about him working with a variety of adults to avoid over-reliance on one person. Consideration also needs to be given to those situations when adults can take a more detached role and allow him to mix successfully with his peers. A's present targets include developing activities in which he can participate with his peers with minimal adult support.

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