Preparing for less intensive settings

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Executive summary

This study aimed to look at increasing self-management strategies for a learner transitioning to a less intensive setting. This study demonstrates the importance of teaching the student to tact their behaviour independently, and the importance of fading out reinforcement and 1:1 sessions. This student is still struggling to identify when they are unable to access reinforcement and this needs to continue to be worked on before transitioning to his next session.

Introduction

This study involved an 11-year-old boy moving to year 7 in September. He has made significant progress through the use of ABA in language acquisition, skills training and behaviour reduction. He is now ready to transition to a less intensive setting. However, this student still had a 1:1 Tutor and a high level of additional reinforcement. Transitioning can cause added new stress to the family and potentially increase challenging behaviour (Fox et al., 2002). Therefore, a strict transition plan focusing on classroom skills (which will be relevant to their new classroom) needs to be taught. Research suggests that prior to transitioning individuals this should be the focus of their IEP as opposed to teaching new skills (Freeman, 2016). This students barrier to transitioning was still identified as his high level of self-stimulatory behaviour (using VB-MAPP transition assessment) which affected his ability to follow instructions, transition independently (he would run off to turn lights on and off) and work independently; all of which are key skills for working in a less intensive setting. This needed to be the focus of his programme to ensure a successful transition to a less intensive setting.

Research suggests that self-management is the ultimate goal in reducing behaviour, as the student manages their own behaviour without the help of additional adults, therefore this would be most beneficial to this individual in his new setting. Koegel & Koegel (1990) demonstrated that by teaching students to label their own behaviours and associate this with reinforcement (a clicker), individuals were able to self-manage their behaviour.

This study aims to look at the use of self-management in aiding a successful transition to less intensive 1:1 settings.

Methodology

When the individual in this case study arrives at school, she This study was split into two phases; the first phase involved teaching the student what behaviours he would be targeting and the second phase (once he reached mastery criteria of 3 days correct identification of appropriate and inappropriate behaviours) was managing his behaviour himself throughout the day.

Phase I:

Initially videos were taken of the student when he was engaging in topographies listed on his behaviour plan, particularly his self-stimulatory behaviours and when he was engaging in appropriate behaviour. Following agreement with the Consultant behaviours targeted were:

- Running through corridors
- Taking multiple stairs at once
- Pressing buttons without asking
- Loud noises
- Large fast repeating hand movements
- Standing too close to his peers
- Banging into objects

Due to his level of receptive understanding it would be too difficult to teach him to label each behaviour, therefore the concept of zones of regulation (Kuypers, 2013) was used. Using this concept he was taught to label these behaviours under the colour 'yellow'; according to zones of regulation yellow encompasses emotions such as: worried, silly or annoyed. At this point his behaviours relating to being told no and getting things incorrect (which could result in crying, banging objects, falling over) were not targeted but were explained to him as being blue (sad) or red (angry) if he engaged in them.

Green behaviours (described as 'happy' in zones of regulation) were behaviours which N engaged in when he was playing which were deemed appropriate by the Consultant and Supervisor:

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- Following instructions first time
- Walking with hands by side
- Walking one step at a time
- Walking through the corridors
- Asking before pressing buttons
- Able to re-direct behaviour with vocal prompting
- Maintaining arm's length distance between peers

Teaching:

He would sit at a computer and watch videos of himself in 'green' or 'yellow'. He was told in receptive language he would understand what yellow and green behaviours were (Figure 1). He was initially prompted using errorless teaching procedures which was green, and which was yellow. At the end of the session, the teacher would ask him to transition (e.g. put an item into the bin) showing 'green' behaviour.

Figure 1. Explanation of yellow and green zones of regulation for N

Yellow means:	Green means:
• Moving hands	• Still hands
• Too close	• Not close
• Running	• Walking slowly
• Not listening to teacher	• Listening to teacher

Reinforcement:

To pair up the clicker as reinforcing he would receive a click for accurately identifying green behaviour, would receive praise for accurately identifying yellow behaviour (to ensure no yellow behaviour was reinforced) and would be corrected if he inaccurately identified yellow or green behaviour.

Phase II:

This student's day was broken down into 15-minute sections (Figure 2). A timer would go off every 15 minutes to prompt him to check in with green or yellow to receive reinforcement. If he was in green, he would get a click and would re-start the time. If he was in yellow, he was told at the point of the yellow behaviour; when the 5 minutes was finished he would have a cross on the timetable and was not given a click, but would be told he could try again. He initially would check in with his reinforcement three times per day (snack, lunch and end of the day), with the aim to fade to once per day (Figure 3, mastery criteria).

Data:

Data were taken on how many ticks he had in a day, the number of ticks corresponded to how much time he would earn on the computer (Figure 4). He would be differentially reinforced for spending the majority of his time in green rather

Figure 2. Division of the day into sessions

Figure 3. Fading & Mastery criteria

- 3 days accessing highest amount of time on computer (not necessarily the bonus item). For each phase this is the same mastery criteria.
- Computer will then be accessed at lunchtime only for a 30-minute period of time. 'Free time' will be written in where he previously would have checked in.
- Computer will then be accessed at lunchtime only for a 15-minute period of time. 'Free time' will be written in where he previously would have checked in.
- Computer will then be accessed at end of day only for a 30-minute period of time. 'Free time' will be written in both places where he previously would have checked in.
- Computer will then be accessed at end of day only for a 15-minute period of time. 'Free time' will be written in both places where he previously would have checked in.

than yellow. Out of 56 potential ticks a percentage for time spent in green was taken.

Mastery Criteria:

His mastery criteria before fading reinforcement was 90% of day spent in green behaviour.

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Figure 4. What do I need to get to go on the computer?

- 18 clicks = Computer + N's choice for 15 minutes
- 15, 16, 17 clicks = Computer 15 minutes
- 10, 11, 12, 13, 14 clicks = Computer 10 minutes
- 5, 6, 7, 8, 9 clicks = computer 5 minutes
- 1, 2, 3 ,4 clicks = Computer 1 minute

- 21 clicks = Computer + N's choice for 20 minutes
- 18, 19, 20 clicks = Computer 20 minutes
- 15, 16, 17 clicks = Computer 15 minutes
- 10, 11, 12, 13, 14 clicks = Computer 10 minutes
- 5, 6, 7, 8, 9 clicks = computer 5 minutes
- 1, 2, 3 ,4 clicks = Computer 1 minute
- 5, 6, 7, 8, 9 clicks = computer 5 minutes
- 1, 2, 3 ,4 clicks = Computer 1 minute

Results

The results demonstrate that this student is able to regulate his behaviour on average 80% of his day, after 3 weeks of intervention (Figure 5). Anecdotally he is only able to identify his behaviour as yellow if the yellow behaviour occurs close to the 5-minute timer going off. Through regulation of his behaviour and re-stating the green behaviours every 5 minutes he has also begun to regulate his inappropriate social behaviour (Figure 6).

During the intervention 2 changes had to be made to further increase engagement in green behaviour.

1. Removal of clicker: he was engaging in self-stimulatory behaviour with the clicker and would grab and attempt to add more to the clicker if in yellow behaviour

2. Removal of tacting yellow behaviour when he was engaging in it: he began to engage in yellow behaviours at a higher frequency when he was told. This would then affect the next 5-minute interval. The removal of this reduced the socially inappropriate behaviour to near zero (Figure 6) and the average engagement in green behaviour to 90% (Figure 5).

This is currently still at the most intensive schedule of reinforcement (reinforcement

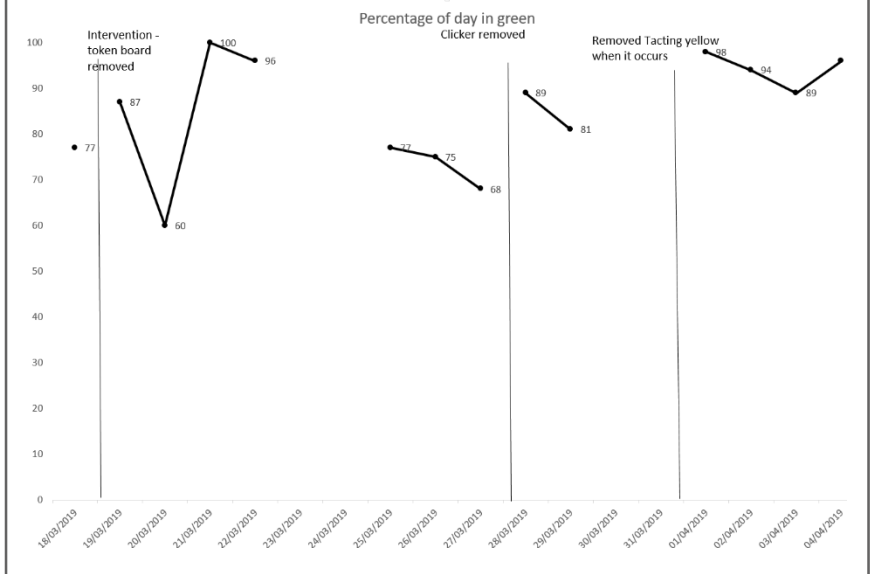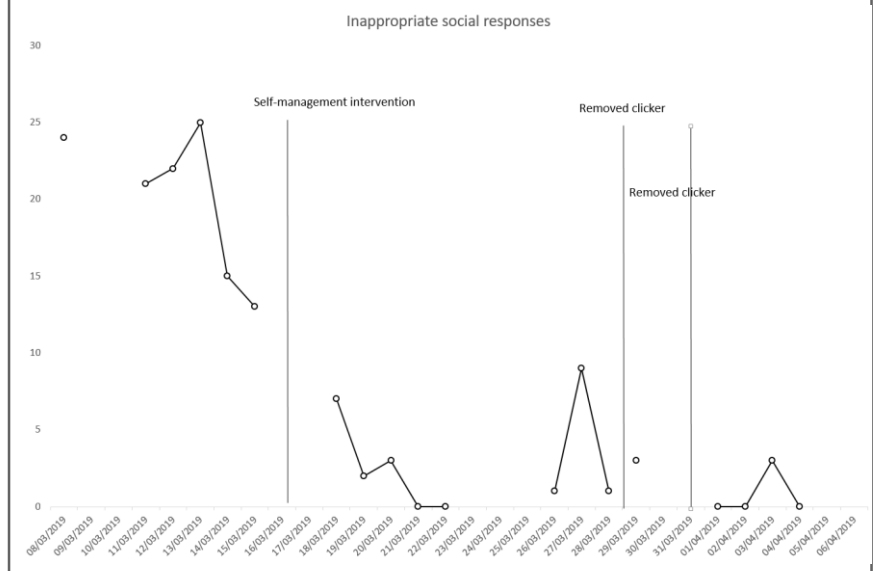## Figure 5. Percentage of day in green

Figure 6. Inappropriate social responses

occurring three times per day plus sessions of free time twice per day), however this has decreased from accessing reinforcement every 15 minutes (i.e. 20 times per day).

Conclusion and discussion
These results suggest that through assigning a range of behaviours to colour, associated with zones of regulation, students are able to regulate their own behaviour with additional reinforcement.

Throughout the 3-week period there needed to be changes to ensure this student engaged more frequently in green behaviour. The results demonstrated that when he was told he was in yellow behaviour, at that point he found it difficult to manage this and it would be followed with multiple yellows for 5-minute times. As he was being reinforced on an FR schedule this could be attributed to the Scalloping affect seen with using

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an FR schedule. Anecdotally he was also finding being 'reminded' of his rules reinforcing (suggested by the increase in this behaviour). Staff were told to tell him what colour he was at 5 minutes instead of when the behaviour happened; this increased the occurrence of green behaviour, suggesting that tacting behaviour is the reinforcement to him.

The interesting finding from this study is its effect on his inappropriate social behaviour. Through being taught 'close'/'not close', he is now remaining at an appropriate distance from peers. He is engaging in socially appropriate responses such as saying 'hello' and pulling his peers on the scooter board. He is also opting to engage in solitary appropriate play (e.g. riding his bike) after being reminded he is 'too close' to somebody, thereby demonstrating self-management.

However due to the nature of prompts for Tutors (timer going off every 5 minutes), Tutors are ensuring he is engaged thoroughly throughout the day. This may be the reason for the change in behaviour as he engages in more self-stimulatory behaviour when he is not fully occupied.

In the future the case still needs to continue to fade out reinforcement to ensure contingencies are natural-based contingencies that would be seen in less intensive settings (i.e. social praise, working for a computer at home).

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