Can self-management interventions influence the academic achievement of students with emotional and behavioural difficulties?

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[ORIGINAL TITLE: A review of self-management interventions targeting academic outcomes for students with emotional and behaviour disorders]

Introduction
The researchers involved in this research review identified a need to improve the academic achievement of students with emotional and behavioural difficulties (EBD). Students with EBD tend to:
- underachieve at school, especially in maths, reading and writing; and
- have difficulties following instructions, working productively and managing their behaviour.

The researchers found that:
- self-management interventions have positive impacts on students’ academic achievement;
- a range of self-management interventions including: self-monitoring, self-evaluation, self-instruction, strategy instruction, and multi-component interventions have all shown positive impacts; and
- self-monitoring was the most commonly used self-management intervention.

The researchers also identify some key areas from the literature which require further research and investigation. This study concentrates on the positive findings in relation to students’ behaviour and achievement in maths.

Keywords: USA, Special Schools, Pupils, Mathematics, Behaviour, Special Educational Needs

Contents
What did the researchers find out about the use of self-management interventions for students with emotional and behavioural difficulties? Page 3
What did the researchers mean by ‘emotional and behavioural difficulties’ (EBD) and ‘self-management interventions’? Page 4
What were the aims of the study and how was the study designed? Page 5
What are the implications of the study for practitioners? Page 6
Where can I find out more? Page 7
What did the researchers find out about the use of self-management interventions for students with emotional and behavioural difficulties?

The researchers found that students with emotional and behavioural difficulties showed positive improvements in academic skills as a result of using self-management techniques. Students using these techniques were found to be more satisfied with their work and the improvements they made were maintained over time.

The researchers found that the self-management techniques, designed to teach children how to manage their behaviour, made measurable improvements to students’ academic skills. The techniques being used included self-monitoring, self-evaluation, self-instruction, goal-setting and strategy instruction, of which self-monitoring was the most commonly used technique and goal setting was the least commonly used technique.

The majority of studies found that self-management techniques improved pupils’ maths computation skills, through improving work productivity and developing fluency with newly learned mathematical concepts.

The researchers also identified areas requiring further investigation, including research:

- in mainstream classroom settings, because the studies in the literature review were set in withdrawal situations;
- involving larger sample sizes as the majority of studies focused on individual students or small groups;
- across a wider range of subjects, the focus of the studies was narrow and the majority were on interventions in maths; and
- into how strategies and techniques are sustained by students and teachers over time.

What did the researchers mean by ‘emotional and behavioural difficulties’ (EBD) and ‘self-management interventions’?

The researchers defined emotional and behavioural difficulties as emotional and behavioural problems which take the form of lack of attention, underachievement and inability to manage school work and behaviour.

Self-management techniques help students to change and/or maintain appropriate behaviour through teaching them how to manage their behaviour themselves. The researchers explained that there are five commonly used self-management interventions:

- **Self-monitoring** – this two-stage approach involved pupils observing and recording their own behaviour on a tick sheet. Students identify the target behaviour and make a record of it e.g. keep hands and feet to themselves, put hand up to answer questions, not to fiddle with pencils/pens. The researchers defined self-monitoring as a ‘multistage process of observing and recording one’s behaviour.’ First the student identifies the occurrence or non-occurrence of a target behaviour, then s/he records some aspect of the target behaviour at set, or cued, intervals;

- **Self-evaluation** - this technique is similar to self-monitoring as it involves students’ self-assessment and self-recording of behaviour. It also involves comparing their own performance to criteria set by themselves or a teacher.
e.g. on improving performance over time. Students are given reinforcement in the form of achieving goals or getting recognised praise from teachers and school;

- **Self-instruction** - this approach involves students making explicit statements to themselves to direct their own behaviour;
- **Goal-setting** - requires students to set behavioural targets such as completing an assignment e.g. on-task time, work completion, interaction with other students. This has been found to help motivate students because it allows them to structure their work and monitor their own progress; and
- **Strategy instruction** - involves teaching students a series of steps to follow independently in order to solve a problem and achieve an outcome. The researchers explain that strategy instruction works as a cue to help students’ self-manage behaviour.

**Page 5**

**What were the aims of the study and how was the study designed?**

The researchers aimed to review research on emotional and behavioural difficulties, self-management interventions and their impact on student academic achievement. They hoped to gain an overview of research on the use of self-management techniques with students experiencing EBD, to identify any gaps in the research and to suggest areas for future research. Past research has focused on improving inappropriate social behaviours, rather than addressing student academic skill deficits.

The majority of studies included in the review involved students aged between 5 to 11 years old, a number of other studies were included that involved students age 12+ years.

A number of key research databases including ERIC, PsychINFO and Find Articles were searched for relevant studies. Hand-searching was also done for key journals published between 1970 and 2002. The researchers consulted prior literature reviews and followed citations from relevant studies. Initially 564 studies were identified. From these 22 studies met the inclusion criteria and were used in the review.

The studies had to:
- include students aged between 5 to 21 years and recognised as experiencing EBD;
- be peer-reviewed and based on empirical research; and
- involve self-management interventions.

**Page 6**

**What are the implications of the study for practitioners?**

In completing this digest, the authors began to ask the following questions about implications for practitioners:

- what formal or informal self-management techniques do you already use with your students and how could they be further developed in light of the findings from this study?
- the study presents a range of self-management interventions used in withdrawal situations i.e. where pupils’ are taught outside the class. Could these techniques be used in whole class teaching?
School leaders may wish to consider the following implications:

- the researchers found evidence to show the academic benefits of a variety of self-management interventions. Could your school adopt an approach to self-management that enables teachers and students to capitalise on self-management techniques acquired in different subjects, contexts and phases?
- could ICT resources within your school be used to support students’ self-management and self-evaluation by helping them with recording?

Where can I find out more?

Practitioners may be interested in another summary on emotional and behavioural difficulties on the TRIPS site, please have a look at:

**Affective teaching: a method to enhance classroom management**
This is a summary of an Israeli study into the use of teaching approaches with students suffering from EBD to improve student behaviour. Available at: [http://www.standards.dfes.gov.uk/research/themes/behaviour/affectiveteaching/](http://www.standards.dfes.gov.uk/research/themes/behaviour/affectiveteaching/)[Accessed: 09/01/06]

If you liked this study but want a shorter version to show to your head then please have a look at the following article in the NERF Bulletin on behaviour management:


For a more detailed summary of research into EBD please have a look at the following RoM:

**Classroom behaviour: Which strategies are effective for primary school pupils with emotional or behavioural difficulties (EBD) in mainstream classrooms?** This RoM looks at the different strategies used to support pupils with EBD in primary classrooms and provides two detailed case studies and five illustrative case studies. Available at: [http://www.gtce.org.uk/PolicyAndResearch/research/ROMtopics/ROMprimaryEBD/](http://www.gtce.org.uk/PolicyAndResearch/research/ROMtopics/ROMprimaryEBD/)[Accessed: 09/01/06]

Another RoM looks at how research findings about assessment can be used effectively by teachers in the classroom. **Assessment for learning: putting it into practice.** Available at: [http://www.gtce.org.uk/PolicyAndResearch/research/ROMtopics/98873/](http://www.gtce.org.uk/PolicyAndResearch/research/ROMtopics/98873/)[Accessed: 12/01/06]

Other Resources
The Behaviour 4 Learning website at [http://www.behaviour4learning.ac.uk/](http://www.behaviour4learning.ac.uk/) provides a wide range of support and resources for practitioners for managing classes and pupil behaviour. [Accessed: 09/01/06]

The following weblink connects to a paper by Alhassan *Teachers and their Disruptive Pupils* provides suggestions for managing disruptive student behaviour: [http://www2.ncsu.edu/ncsu/aern/alassan.html](http://www2.ncsu.edu/ncsu/aern/alassan.html)[Accessed: 09/01/06]