Self-Management Interventions

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INTRODUCTION

Many instructional and management strategies used in classrooms rely on external agents such as teachers and peers to control, direct, and regulate pupil learning and behaviour. The heavy use of external agents for instruction and management, however, has its limitations, which include:

- overlooking important learning opportunities and behaviours while the teacher is monitoring many pupils at any single instance;

- pupils depending on the teacher as the cue for expected classroom behaviours; and

- not generalizing the expected appropriate behaviours to situations where the external agent(s) or where the externally-administered contingencies may not be present (Kazdin 1975).

These limitations have led researchers to develop alternative strategies that do not rely solely on teacher management. A set of intervention strategies which have been shown to reduce pupil dependence, enhance self-regulated learning, and promote pupil responsibility of their own behaviour is self-management. Self-management interventions are defined as procedures that involve teaching pupils to engage in some self-directed behaviours (e.g. self-monitoring, self-evaluation) to improve other appropriate academic and social behaviours (e.g. attending, following class rules) (Cole & Bambara 1992). Changes in pupil behaviour as a reaction to observing and recording the behaviour are referred to as reactive effects. Self-management techniques may enable pupils to develop and/or improve their academic and social behaviours, while providing teachers more time for teaching and requiring less teacher time for maintaining classroom discipline (Rosenbaum & Drabman 1979; O'Leary & Dubey 1979; Smith *et al.* 1988).

REVIEW OF RESEARCH

Self-management interventions have been shown to successfully remediate a variety of behaviour and academic problems exhibited by pupils of all ages in school settings. Commonly used self-management interventions in the research literature include self-monitoring, self-evaluation, self-reinforcement, self-instruction, and self-management combination packages.

EFFICACY OF INTERVENTIONS

Self-monitoring refers to the systematic observation and recording of one's own behaviour in an effort to produce reactive effects, or changes in the behaviour being monitored (Shapiro & Cole 1992). It has been used frequently to increase on-task behaviour of pupils with behaviour disorders (Hughes, Ruhl & Misra 1989). For example, in a study by McLaughlin (1983), self-monitoring of attention was implemented with three male elementary pupils labelled behaviourally disordered. These pupils were taught to self-monitor their on-task behaviour whenever they remembered it, without the use of cueing devices or external prompts. Results indicated that self-monitoring increased each pupil's on-task behaviour during mathematics, spelling, and handwriting. In another study, Christie, Hiss & Lozanoff (1984) evaluated the effects of self-monitoring a variety of appropriate and inappropriate behaviours on three children with hyperactivity. Behaviours included inattentiveness, out-of-seat/off-task, aggression, emotional outbursts, disruptive noise, attention soliciting, talking, and on-task/attentiveness. During intervention, the teacher signalled, either verbally or with a nonverbal gesture to the children to record their behaviour. Results indicated that self-recording reduced inattention for two children, consistently improved on-task behaviour for two children, and substantially reduced two children's inappropriate classroom behaviour including disruptive behaviour.

Another self-management technique is **self-evaluation**. This involves the comparison of one's performance against a predetermined standard for the target behaviour (Kanfer 1977). It is defined as pupils' learning to evaluate their own classroom behaviours and to match within certain criteria their evaluations with those of another evaluator. This procedure has seldom been implemented in isolation and is typically included as one component within a multicomponent self-

management package. Smith *et al.* (1988) evaluated the effectiveness of self-evaluation training combined with a token programme in reducing the disruptive and off-task behaviours of four junior high pupils. Initially, the pupils were informed of the class rules and rated their behaviour on a scale of 0 to 5, according to how closely they followed these class rules. At the end of each class period, pupil ratings were compared with teacher ratings, with bonus points awarded for matching and a penalty imposed for failure to match. Points were exchangeable for snacks, school supplies, or magazines. Matching requirements were gradually reduced and a simplified form of the procedure was introduced. Results indicated self-evaluation reduced off-task and disruptive behaviours.

A third self-management procedure is **self-reinforcement** which is typically combined with self-management procedures such as self-monitoring and/or self-evaluation. Self-reinforcement is defined as the administration of reinforcement contingent upon the degree to which the target behaviour differs from the performance standards (Kanfer 1977). For example, a comparison study was conducted to evaluate the effectiveness of self-reinforcement, descriptive praise, combination of self-reinforcement and descriptive praise, and token reinforcement in maintaining reading comprehension performance (Novak & Hammond 1983). A total of 28 fourth grade pupils were randomly assigned to the four groups which participated in the study. In the self-reinforcement procedures, pupils were taught to observe, record their behaviour, and assign tokens to themselves based on criteria predetermined by their teacher. Accuracy of self-administration of reinforcement was determined by comparing each pupil's record with the teacher's. Overall, pupil's accuracy was consistently above the criterion 80 per cent of the time. In descriptive praise procedures, each pupil received a descriptive statement regarding his/her behaviour and a possible natural consequence when the token was presented, contingent upon the occurrence of completed problems. The third group received training in self-administration of reinforcement, as well as a descriptive statement regarding their behaviour and a possible natural consequence in the same manner as the second group. In token reinforcement procedures, the group received tokens for problem completion. Results indicated that all four procedures produced an increase over baseline in number of reading problems completed during intervention, with groups in self-reinforcement and descriptive praise showing the greatest improvement. All three groups, however, except the combination group, showed subsequent decreases in performance during the follow-up phase. Although the combination group had only the third largest

treatment gain, these gains remained intact when the intervention was withdrawn.

Self-instruction involves teaching an individual specific verbalizations (i.e. talking to self) to direct his/her behaviour (Cole & Bambara 1992). Pupil's behaviour problems are assumed to result from a deficient process of comprehension, production, and mediation. The internalization of verbal statements is thought by some to be critical in children's development of self-control of their behaviour (Meichenbaum & Goodman 1971). The original self-instruction package was developed by Meichenbaum & Goodman (1971). In their study, an attempt was made to train children with hyperactivity to verbalize overtly, and then covertly to guide their behaviour. Self-instructions were initially modelled by an adult during training. Following this, pupils were requested to use overt and subsequently covert speech to control their behaviour. Verbalizations included self-reinforcing statements, strategies for coping with errors, directions for focusing attention, and identifying details of the task. Results indicated the efficacy of self-instructional procedures with children. Using a similar format, Graham & Harris (1989) taught pupils with learning difficulties to guide themselves through the steps of a strategy for composing an essay. Self-instruction has also been used successfully with preschoolers on academic-related behaviours such as on-task and independent work behaviours.

These self-management strategies have frequently been combined in **multicomponent self-management packages**. For example, Glomb & West (1990) investigated the effectiveness of a self-management programme for two high school pupils with behaviour disorders. The procedure, which included introduction of knowledge of behaviour analysis, self-instruction strategies, goal setting and planning to achieve those goals, and self-evaluation, was designed to teach the pupils how to plan assignments and monitor creative writing for completion, accuracy and neatness. First, the pupils were taught to identify the antecedents and consequences of their behaviour regarding completion of homework or seat work assignments. Then self-instruction strategies were presented in the steps called **WATCH**: (a) **W**rite down an assignment; (b) **A**sk for clarification if needed; (c) **T**ask-analyse the assignment; (d) **C**heck all work for completeness, accuracy, and neatness. Subsequently, they were instructed to evaluate their work based on predetermined standards and award points accordingly. Pupils' ratings were compared with the experimenter's. One bonus point would be awarded if pupils matched exactly or within one point of experimenter's rating. This self-management package resulted in the

completion, accuracy, and neatness of pupil's creative writing homework assignments.

STEPS TO USING SELF-MANAGEMENT

DEFINE THE TARGET BEHAVIOUR(S)

The first step in developing a self-management programme is to specify the behaviour(s) to be observed. This involves defining in a clear and recognizable manner the behaviour (e.g. what are off-task behaviours) itself. Target behaviours can be selected for self-management at the individual or group level.

IDENTIFY REINFORCERS

Reinforcers refer to rewards or contingencies (e.g. praise, tokens) which can be used to increase the occurrence of desirable behaviours and/or to decrease the occurrence of undesirable behaviours. When reinforcers are interesting and desirable to pupils, the motivation to perform appropriate behaviours is increased.

IDENTIFY THE APPROPRIATE SELF-MANAGEMENT RECORDING DEVICE AND INTERVENTION(S)

Choosing the appropriate self-management device depends on how the teacher would like to record selected target behaviour. For example, if frequency counting is required for a particular behaviour (such as number of completed maths problems), the pupil use a notebook to record the number for each lesson. If duration counting is required to monitor the amount of time spent on-task, a timer can be used to signal time periods. Depending on the capability of the pupil, the teacher can use any or a combination of the self-management interventions described earlier in use with the device. For example, the teacher could use a combination of self-monitoring, self-evaluation and teacher-delivered reinforcement (as opposed to self-reinforcement) for noting the duration on-task behaviours on a time-interval checklist sheet.

TEACH THE PUPIL TO USE THE SELF-MANAGEMENT DEVICE

For this step, the teacher explicitly teaches the pupil to:

• identify and observe for the targeted behaviour (e.g. on-task);

• prompt the pupil to engage in the behaviour of self-evaluation and recording the evaluation; and

• reinforce the desirable behaviours through some previously identified rewards.

TEACH SELF-MANAGEMENT INDEPENDENCE

Independent self-management refers to the use of self-management interventions without prompts or externally-administered consequences from an external agent (e.g. the teacher). To achieve this, the steps in the self-management interventions used are first explicitly taught and then gradually faded away to allow the pupil to accomplish the steps independently. This gradual fading away of external support translates into the pupil spending more time actually self-managing. The teacher can gradually require more self-managing responses to be made before reinforcers are earned or gradually increase the time period between opportunities to record behaviours.

CONCLUSION

Although self-management practices have been documented and shown to be effective in the research literature, it is not known to what extent teachers in Singapore use these interventions to address learning and behavioural concerns among their pupils. Self-management interventions are presently introduced to students enrolled at the National Institute of Education in a module on interventions in the Diploma in Special Education Programme, and in a module on teaching pupils with learning and behavioural problems offered in the Postgraduate Diploma in Education programme. Research conducted with local teachers can address the treatment acceptability of such interventions in classrooms. Self-management interventions can be used in combination with other teacher-led strategies for individual pupils or on a class-wide basis to provide the necessary scaffolding for greater levels of learning and behavioural independence in a practical manner. In the light of the current shift from teacher-led to pupil-centred learning where personal responsibility, initiative and independent self-regulation are encouraged, self-management interventions offer an alternative approach to achieving these goals.

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