Positive effects of Relaxation and Music in Limiting Off-task behaviour of Young Children.

Neville J. Schofield  
University of Newcastle

Teachers at all levels invariably report that off-task behaviour in all its forms, represents the most serious problem that they regularly face in the classroom. For the teacher, having children calling out when not called upon, chatting about non-work related matters and making unwanted comments and remarks are behaviours which, at best, are irritating and time wasting and, at worst, are a source of considerable stress leading to physical and emotional exhaustion (Wheldall, 1991). Such children and those around them, are also at a significant educational disadvantage, since their ability to learn effectively is almost inevitably impaired. As a consequence, the benefits of creating a stable and harmonious classroom environment which minimises such behaviour are considerable for both teacher and pupil.

It is also possible that such behaviour in the early years at school can establish a pattern, which, in turn, creates in the child's self-image a sense that they are a "bad" person. Such patterns may then follow through into the later years of school and, with an image of self as a troublesome and disruptive child, lead to a cycle which is very difficult to break. Consequently, it would seem to be extremely important to establish a stable classroom environment in the early years of school through positive and non-intrusive methods.

The reasons for off-task behaviour are multitudinous but it is possible that one common feature is that children, particularly very young children, can easily become over-aroused or, to put it another way, stressed. This paper reports two studies which sought to limit off-task behaviour in the K-2 setting through two different methods which were aimed at reducing the levels of stress in the children. In the first, children were taught relaxation methods while in the second "easy-listening" music was employed.
There is ample evidence that relaxation can reduce arousal and, while most studies have been with adult populations, a number have used relaxation with children with results ranging from increased attention and reduced impulsivity in hyperactive children (Matthews & Justice, 1983) to improved self concept and academic achievement in gifted children (Margolis, 1990). Indeed, the benefits of relaxation are so convincing that the Swedish school system has incorporated 20 minutes of relaxation each day into their total school curriculum (Lang & Stinson, 1991). However, there is little in the literature to suggest exactly what it is that relaxation does that produces such improvements in the classroom. This paper suggests that the source of some of these improvements may lie in the reduction of off-task behaviours and the consequent increase in attention to learning which should arise.

While the various forms of conscious relaxation have been shown to produce many positive benefits in the classroom, the retail industry has long realised that music can produce more relaxed shoppers who are more willing to part with their cash. Similarly, waiting rooms, lifts and many of our public buildings have long been purveyors of "Muzak" which purports to put us in a relaxed mood. Yet, in spite of all this apparently common knowledge, our classrooms have remained musically arid while teachers attempt to calm students by means of threats and rewards. This common wisdom about music "soothing the savage breast" is not without empirical support, some of which has been in an educational context. For instance, music has been used to increse on-task behaviour (Davidson & Powell, 1986) help modify bus misbehaviour, improve reading comprehension and enhance attention (Gregoire, 1984). Indeed, music is considered to be just one of the therapist's tools when working with intellectually disabled children, while within the recent Accelerative Learning debacle, music
was afforded a prominent position (Felix, 1993), although again the empirical basis for its prominence was not clear. This paper suggests that the benefit of all of these lies in the potential of both relaxation and music to bring about a reduction in off-task behaviour, possibly as a result of decreased stress levels.

METHOD

Study 1 (Relaxation).
Subjects: Subjects comprised 6 Year 1 children and 23 Year 2 children from a 1-2 composite class in a Hunter Valley school. None of the children had any previous formal relaxation experience.
Design: The study covered a 9 week period, with the first 3 weeks being to establish base-line data, then a 4 week intervention period, and then 2 weeks post-intervention to determine whether behaviour reverted to base-line levels.
Measurement: Observations of ten minutes duration were made at three specified times each day, first thing in the morning after "news", then after recess and lunch. There were two teachers on the class and all observations were made by the teacher who was not teaching at that time. A check-list was used and the number of children who were off-task in that time period was recorded.
Intervention: During the four week intervention period, five minute sessions of relaxation were used immediately prior to the three daily observation periods. Each relaxation session consisted of either guided visual imagery or progressive muscle relaxation.

Study 2 (Music).
Subjects: Subjects comprised 28 children in a Kindergarten setting with ages ranging from 4.5 to 6.5 years. One child had hearing difficulties, another was being tested for ADDH and five others presented as behaviour problems.
Design: A similar design was employed but over a 6 week period, with each phase comprising 2 weeks.
Measurement: Observations were made at nine specific times during the day with each observation lasting only 10 seconds. Three observations were made at 5 minute intervals.
beginning at 10.25am, 12.25pm and 2.00 pm. Again there were two teachers on the class and the observations were made by the second teacher.

Intervention: Music for the intervention was generally soft and slow symphonic music of the Baroque period (Giles, 1991) with pieces such as Vivaldi's Four Seasons being used. A two minute listening exercise was conducted with the class immediately following "news" in the mornings, after which the music was left playing throughout the day.

RESULTS

Study 1 (Relaxation). Figure 1 shows the pattern of off-task behaviours over the nine week period of the study. A significant decrease (F=11.91, p<.01) from base-line levels was observed for the period of the intervention with the incidence of negative behaviour increasing after the intervention was withdrawn, but not to the original level. The overwhelming impression gained from these results is that the intervention was successful in reducing off-task behaviour by approximately 40%. One can only surmise that this result is, at least partially attributable to a reduction in stress levels among the participants. It could also be inferred from these data that the intervention had some lasting effect, since the levels of off-task behaviour did not return to their base-line levels. This is further reinforced by the trend that seemed to be emerging in the second week of the post-intervention phase in which levels were again falling, although this may have been simply coincidental.

Study 2 (Music). An even more dramatic improvement (F=61.21, p<.001) in behaviour was observed in this second study, with the incidence of off-task behaviour declining to approximately one-third of their base-line levels (see Figure 2). However, this improvement did not continue when the intervention was discontinued, with off-task behaviour actually
increasing slightly above
the base-line levels.

DISCUSSION

These results suggest that simple, relatively non-intrusive strategies
can be extremely
effective in reducing the incidence of off-task behaviour in the K-2 setting. Indeed, the
least intrusive method of intervention, the playing of background music
during lessons,
was the more effective of the two. However, the most important
implication to come
from this is that much of what is construed as off-task behaviour in
the K-2 setting may
have its roots in stress. In other words, even very young children may
be experiencing
considerable levels of stress in their daily classroom environment and
this stress may lead
to inappropriate behaviour. By reducing such behaviour, both teachers
and pupils have
the opportunity to more adequately participate in education in a less
stressful environment
and the nett result of such stress reduction should be more effective
education for all
children. It should also result in less stress for teachers!

Another by-product of this success is that it may be possible to
permanently interrupt the
destructive cycle of a child's self-perception as disruptive, which
then leads to behaviour
which fits that perception, which reinforces the original perception.
If teachers are able to
also capitalise on the value of a peaceful environment, children may
become more aware
of their capacity to control their own behaviour through controlling
their environment.
Certainly such knowledge and consequent control would be in accord with
current theories
of intelligence and intelligent behaviour (cf Sternberg, 1985).

Finally, teachers should be encouraged to explore such innovative and
non-intrusive

methods of behaviour management for the benefit of both their pupils
and themselves.
Certainly, anything that can assist in the maintenance of the mental
health of both teachers
and pupils should be vigorously pursued by both teaching authorities,
who have responsibility for the mental health of teachers, and the teachers themselves, who have a vested interest in their own mental health, while also being ultimately responsible for the mental health of their pupils.

REFERENCES


