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Thesis

**Title: Managing Anxiety – Intervention
Strategies for Schools**

**Subtitle: Examination Anxiety – Live with it,
Control it or Harness it?**

**Thesis submitted for the Continuing
Professional Development Doctorate in
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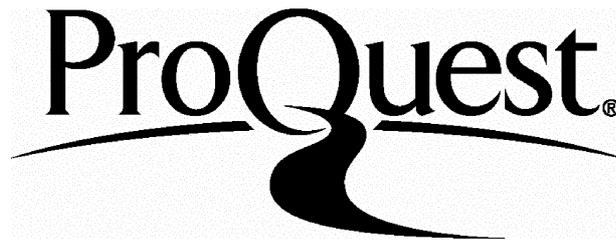
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Doctoral Programme for Practising
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(DEdPsy)

Research Thesis

Submitted in part fulfillment of the requirements for the Continuing Professional Development Doctorate in Educational Psychology (DEdPsy)

Name of Course Member: **Paula Astrid Gregor**

Title of Thesis:

Managing Anxiety – Intervention Strategies for Schools

Subtitle:

Examination Anxiety – Live with it, Control it or Harness it?

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Table of Contents

| | Page |
|---|-------------|
| Abstract | 3 |
| Acknowledgements | 5 |
| Ch. 1 – Introduction and Research Review | 6 |
| Ch. 2 - Pilot Study | 44 |
| Ch. 3 – Method | 75 |
| Ch. 4 - Results | 91 |
| Ch. 5 – Discussion | 108 |
| Ch. 6 - Evaluation | 134 |
| Ch. 7 – References | 153 |
| Ch. 8 – Appendices | 167 |

Managing Anxiety – Intervention Strategies for Schools

Abstract

This study was a school-based initiative, evaluating intervention strategies to help secondary pupils with the self-management of examination anxiety. The study compared the effects of a range of approaches on participants' performance in the GCSE examinations and on self-reported examination anxiety. A total of 105 Year 11 pupils were randomly assigned to one of three experimental conditions and one attention control condition. Five intervention sessions were delivered jointly by a teacher and an educational psychologist to each of three experimental groups (whole Year 11 Forms). The attention control group continued their standard PSHE lessons. The sessions were blended into the normal school timetable. The three experimental conditions were Group 1 - mixed presentation: relaxation and cognitive behavioural approaches (CBT), Group 2 - relaxation only, Group 3 - attention control group, and Group 4 – cognitive behavioural approaches only. The study used multi-method assessment measures, triangulating cognitive (self-report) measures, behavioural ratings by teachers and performance measures (examination results). These were complemented by qualitative measures. The participants and their teachers completed pre and post measures. Achieved results in the participants' GCSE examinations were compared with estimated results.

The data suggest that cognitive-behavioural approaches, either combined with relaxation strategies or as a single intervention, are effective in helping secondary pupils manage their examination anxiety and in improving their examination performance. These results were subject specific. The mixed

group achieved a statistically significantly greater improvement in Maths and Science grades than the other three groups. The control group improved most in English Literature. All three groups did better than the control group in most of the exam subjects.

Findings suggest an interaction between pre-anxiety level and performance, which invites the conclusion that it is not minimal, but optimal examination anxiety which leads to optimal examination performance. It is also argued that results point to the fact that school based programmes using mixed interventions could be most effective in the prevention of excessive examination anxiety.

The findings of the study will be shared with schools who took part, to inform their policy and pastoral support and to be incorporated into their classroom curriculum. These findings will also be discussed with LEA colleagues, as county-wide implication will need to be considered. It is hoped that findings of the study can be generalised to other forms of evaluative or performance anxiety in a school setting, such as for instance, for competitive sports, school plays or public speaking.

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Particularly warm thanks are due to the pupils and teachers, in particular Mr. Toni Redman, Deputy Head of the Grange School, for participating in both the pilot and the main study with such enthusiasm and commitment, as well as to the parents, for giving permission for their children to take part in the study.

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Paula Astrid Gregor, January 2003

Chapter 1 - Introduction and Research Review

1.1 Background

1.2 Some conceptual distinctions

1.3 Models of anxiety

1.4 Anxiety in children and young people

1.5 Test or examination anxiety

1.6 Methodological aspects

1.7 Intervention strategies

1.8 Critical studies

1.9 Main conclusions from the literature review

1.1 Background

This research project was designed to investigate factors affecting examination anxiety. The study consisted of an exploratory pilot study and a larger scale main study, developing and comparing intervention strategies for the management of anxiety in schools. The pilot project was a dummy run of the main study on the self-management of anxiety by secondary pupils. The aim of this research was to increase understanding about exam stress and enhance practice in preparation for exams.

As part of the research, a literature review was conducted of electronic bases such as PsychINFO, ERIC and Medline, using the keywords 'Management, examination/test anxiety, schools, cognitive behavioural strategies and multimodal vs singlemodal interventions'. The critical references mentioned in the literature review were screened out from a large number of references on examination or 'test' anxiety, as the concept is referred to in the literature. Additional information was gathered through manual inspection of publications and library catalogues.

1.1.1 Why anxiety management?

According to Hobfoll, Schwarzer and Koo (1996), anxiety, stress and coping is arguably the most widely studied complex of phenomena in psychology today. This view was confirmed during the literature search for this review. The search of databases such as PsychINFO alone yielded over one thousand publications on this topic since 1950. So, one might ask, why bother with yet another study of anxiety when there are already so many research projects in existence and why investigate examination anxiety in particular?

The impetus for this research project stemmed from a perceived need in local schools noticed in my daily practice as an educational psychologist. Excessively anxious pupils are part of a group of youngsters whose needs may go unnoticed and who may fall through the loophole of provision (Indoe and Pecherek, 1996). We live in a climate where academic success is increasingly measured by the results of formal testing – the Standard Attainment Targets (SATs), are just one such example – and this unrelenting performance focus has caused increased stress for pupils, teachers and parents. Connor (2001) has highlighted the risk of stress among children taking the SATS as young as aged seven and eleven and called for monitoring and preventative action.

At the beginning of this study, the need for help with problematic examination anxiety was made particularly poignant by the case of a Year 11 pupil in one local school. This young man took his life because he was allegedly very worried about not getting 'good enough' GCSE grades to go to Art College with his friend. There had been no visible signs of undue anxiety or excessive stress in the pupil's behaviour. Neither his family, his teachers nor his peers had any inkling of the emotional agony, which this boy must have gone through. Although his actions left everyone in shock, one positive outcome was that his school was determined to create a climate in which anxiety could be freely expressed and addressed. This expressed objective represented the starting point for the present study.

It is hoped that findings of the study can be generalised to other forms of anxiety in a school setting and that it will contribute to the development of

intervention methods which will help raise standards of achievement in school test situations and other anxiety raising situations. Most important of all, it is hoped that the anxiety management procedures investigated will enable pupils to understand and manage their own anxiety levels.

The topic of examination anxiety rather than social anxiety or any other form of anxiety was chosen because it lends itself more easily to a focused research project, with the experimental situation more controllable, since the participants have little choice whether they take examinations or not. Most theoreticians agree that examination anxiety is a diffuse, complex and varied phenomenon, so the focus on a specific type of anxiety in the more controlled environment of a school may help to manage some of the potential difficulties in this area of study.

In the management of anxiety, lessons can be learned from studies of other emotions such as anger. One such study by Tangney et al (1996) claimed that psychological theories and measures have focussed largely on negative reactions to anger and from a survey of the literature, it would appear that anxiety has encountered similar attitudes and interpretations. Averill (1982) claims that anger has rich positive as well as negative potential in interpersonal contexts: so has anxiety. The present study is about exploring and harnessing the energizing potential of anxiety in a school setting and beyond. Such a study was considered to be timely and useful, since much of the test anxiety research carried out so far focussed on adults or college students and few studies have addressed examination anxiety in an applied and universal school setting. Most clinical studies concentrated on referred, mainly adult participants, with clinically

defined anxiety disorders. Barrett and Turner (2001) found that, to date, there had been few trials of universal and evidence based programmes for preventing anxiety in young people. Barrett and Turner defined universal interventions as those applied to whole populations, regardless of their risk status. In some instances, universal preventative interventions are designed to enhance general mental health or to build resilience. Universal school-based studies addressing subclinical anxiety in a mainstream school population have received less attention. Furthermore, most studies have been carried out in a non-UK context and, therefore, in a different culture.

It is intended that one specific outcome of this research will be an empirically-based collection of practical strategies for schools. Such strategies could be incorporated in the PHSE curriculum as a preventative measure, informing pastoral care and support. It is hoped that the findings from investigating examination anxiety can be generalised to other forms of performance anxiety and evaluative situations such as for instance, sports performances or public speaking. It is also hoped that another outcome of this study will be to contribute towards creating a climate of openness in schools, which may help relieve the often silent suffering of anxious pupils.

1.1.2 Why multimodal strategies?

My past practice and experience as an educational psychologist with anger management interventions have demonstrated that if a person is in a critically high state of emotional arousal, cognitive behavioural strategies alone are no longer sufficient to reduce such a level of arousal. In this case a mixed,

multimodal approach combining physiological, cognitive and behavioural strategies, at the choice of the individual, is likely to be more effective. This view has received some confirmation in the literature. Musch and Broder (1999) in their study of test anxiety, concluded that 'multimodal' counselling is recommended to address both test anxiety and skill deficits.

It is logically appealing that several tools in a 'tool box of strategies' provide a better chance of getting a problem solved, particularly since they allow for individual differences of the anxious individual and for the multivariate composition of the exam anxiety concept and for a variety of contexts.

For this reason, multimodal or mixed anxiety management strategies were compared and contrasted with singlemodal ones in this study, testing the preferred model of anxiety management proposed later in this thesis.

Similar demand for multimodal approaches is emerging from research in parallel fields, for instance, Ollendick and King called for integrated treatments for children with phobic and anxiety disorders (Ollendick, 1979). However, Ollendick recommended these 'total push' interventions with clinically referred children rather than children in a school setting. In a further article Ollendick concluded that, in sum, limited progress has been made in the development of efficacious treatment procedures for children with anxiety disorders'. (Ollendick, 1998).

The purpose of this study was to extend and to investigate the effects of mixed interventions with subclinical groups of young people. Kazdin (1997) suggested that, subsequent to demonstrated efficacy with such interventions, dismantling

might follow in order to establish critical components of the treatment packages. This was the intention for the main phase of this study.

1.1.3 Why include cognitive behavioural strategies in the model?

Salkovskis (1999) highlighted the assets of cognitive behavioural approaches as being cheap, of low intensity and highly effective interventions, which empower individuals and represent a normalising, person centered approach. Stallard (2002), in a selective review of key issues regarding cognitive behaviour therapy with children, questioned the appropriateness of this approach for use with children. However, Stallard found some evidence that cognitive behaviour therapy is effective with children in the treatment of anxiety disorders. Stallard's review focussed mainly on clinically significant disorders rather than on subclinical levels of anxiety.

Cognitive behavioural approaches are concerned with faulty thought processes and involve teaching skills to the individual for the self-management of feelings and, consequently, of behaviour. It was challenging to translate the principles of cognitive behavioural therapy (CBT) from a clinical to a school setting.

1.1.4 Transparency and replicability

One of the repeated criticisms in the literature of the expanding research into CBT is its lack of transparency. Most studies are not explicit enough and do not specify in enough detail, what they do for the study to be replicable. For this reason all the interventions in the present study were clearly scripted. This was particularly important, since the interventions were repeated by several experimenters (i.e. trained teachers) during the main phase of the project.

1.1.5 Developmental aspects

This study addressed anxiety in children and adolescents in a mainstream school setting. The literature on anxiety disorders in children and adolescents highlights clear developmental differences. Older children and adolescents with an overanxious disorder experience significantly more symptoms than younger children (McGee et al., 1990). Stallard (op.cit.) noted that few well-designed cognitive behavioural treatment trials with children have, so far, been reported. Nor is there much evidence of studies with adolescents. This was one of the reasons why the focus participant group in this study was selected from the adolescent school population. The other reason for selecting this age group was that Year 11 is under considerable pressure because of GCSE examinations.

Before launching into the relevance of the literature to methodological and other aspects of this study, it was important to establish a background as well as clarifying definitions and making conceptual distinctions.

1.1.6 How frequent are anxiety disorders?

There is evidence from a number of large epidemiological studies that anxiety disorders are one of the most prevalent categories in childhood and adolescence (Kashani and Orvaschel, 1990, McGee et al., 1990). In a representative sample of 150 adolescents, 8.7% had at least one anxiety disorder that was seen as requiring treatment (Kashani and Orvaschel, 1988). In non-referred children and adolescents, prevalence rates for overanxious disorders ranged from 2.9 % (Bowen et al., 1990) to 4.7 % (Bird et al., 1988). In

the general child population isolated subclinical anxiety symptoms are common as well (Bell-Dolan et al., 1990).

The main emphasis of past research into test anxiety appears to be on theoretical issues such as conceptualisation and assessment and few studies focus on outcomes or on the management of test anxiety in an applied school setting. According to Zeidner (1998), large-scale epidemiological studies of test anxiety are sparse and systematic research is needed so that the concept be better understood.

1.2 Some conceptual distinctions

Anxiety is a complex and diffuse concept. There is confusion over whether it is a symptom or a hypothetical state. Some authors conceptualise anxiety as a stimulus condition or as a response to a stressful condition (Shechter and Zeidner, 1990). Further confusion is caused by the lack of distinction between anxiety as a personality trait and anxiety as a transitory emotional state (Spielberger, 1975). Ultimately, to be scientifically useful and objectively observable, the anxiety concept must be defined in terms of behaviour. For the purpose of this study the observed behaviour was pupil performance in examination situations as expressed in examination results.

Sarason and Sarason (1990) have listed the following as some of the major criterial attributes of anxiety:

'The individual appraises a situation as difficult, threatening or challenging.'

The individual perceives himself or herself as being inefficient or inadequate to the task at hand, lacking coping responses needed to deal forthrightly with a call for action or a situational restraint or opportunity.

The individual focuses on undesirable consequences of personal inadequacy or on undesirable outcomes.

The individual is preoccupied with self-deprecatory thoughts that compete with cognitive task-related activity.

The individual expects and anticipates failure and loss of self-esteem or regard by others'. (Sarason and Sarason, 1990).

Test or examination anxiety includes all of these criteria. In addition, test anxiety also includes the behaviours such as escape, avoidance and procrastination and physiological symptoms such as tenseness.

Anxiety and fear

Both anxiety and fear are reactions to harmful or potentially harmful situations. Fear is the response to a real, specific external stimulus while anxiety is a diffuse reaction to imaginary stimuli or situations.

Anxiety and phobia

A phobia is an exaggerated fear of a specific object, event or stimulus when the probability of harm is small.

Anxiety and stress

A stressful situation is one containing stimuli or circumstances calculated to arouse anxiety in the individual (Lazarus, 1966).

The theoretical distinctions among the constructs anxiety, fear and phobia are based on the degree to which the emotion is specific to a stimulus, or its appropriateness to a situation (Levitt, 1980).

Anxiety and Depression

Beck distinguishes between anxiety and depression by describing the thought content of the depressive patient as centering on a significant loss whilst the thinking of the anxious patient is dominated by themes of danger to his domain. (Beck, 1976). Depression is backward looking; anxiety is mainly forward looking.

1.2.1 Definitions of the anxiety disorders

Fear and anxiety are normal reactions to dangers (real or imagined) and are not themselves pathological conditions. When fear and anxiety are more recurrent and persistent than what is reasonable under the circumstances, and when they impede normal life, then a fear/anxiety disorder exists (Ohmann, 1992).

The most widely accepted framework for a classification of the anxiety disorders is the American Psychiatric Association's 'Diagnostic and Statistical Manual of Mental Disorders' (DSM), first published in 1980 and now in its fourth edition. The DSM provides definitions of clinical anxiety disorders and classifies them into panic disorders with and without agoraphobia, specific phobia, social phobia, obsessive-compulsive disorder, post-traumatic stress disorder, acute stress disorder, generalised anxiety disorder. Examination or test anxiety may have elements of many of these disorders, in particular social phobia, generalised anxiety disorder and panic disorder. Social phobia is defined in the

DSM-IV as characterised by clinically significant anxiety provoked by exposure to certain types of social or performance situations, often leading to avoidance behaviour. As will be demonstrated later in this review, several researchers including Friedman (1997) and the author hold that there is a strong social anxiety factor involved in examination anxiety.

As the DSM classification evolved, criteria for anxiety disorders were successively refined and subclassified; for instance, the phobic disorders were subclassified into agoraphobia with or without panic attacks, social phobia, and simple phobia.

1.3 Models of anxiety

There is such a wealth of models and theories of anxiety in the literature that this overview will be selective and make just a short reference to the historically well established approaches to anxiety. These are:

1.3.1 The psychoanalytical model of anxiety

Freud's psychoanalytical view of anxiety has undergone many subsequent additions and revisions. Essentially Freud claimed that anxiety is largely sexual in origin, and the unacceptable sexual impulses are repressed into the unconscious. These repressed ideas and impulses are then transformed into symbolic representations. The resultant anxiety is replaced by neurotic symptoms. The development of anxiety is said to be the reaction of the ego to danger from the demands of its libido, and in this way an internal danger is converted into an external one (Freud, 1949). Freud differentiated between 'primary anxiety' and later 'subsequent anxiety' resulting from separation,

castration fears or other crises in psychosexual development. He proposes a tripartite model consisting of realistic anxiety – i.e. a direct response to a real external threat, moral anxiety resulting from a conflict between the ego and the superego and neurotic anxiety - which, in turn, is composed of three elements. These are focussed symptoms such as phobic anxiety, free floating anxiety and fully developed sensations of panic.

The theory of psychoanalysis was based on evidence drawn primarily from case studies and research data are limited. The complexity of some of its theoretical constructs has posed practical problems both in terms of definition and for research. Some writers claim that 'Freudian theories are untestable because they cannot be falsified by any conceivable experimental or clinical event' (Eysenck, 1976). Certainly, there is a lack of empirical studies on anxiety within the psychoanalytical literature.

1.3.2 Learning models of anxiety

The essence of learning theory is that fears are considered to be acquired by conditioning or other learning processes and that these acquired fear responses in turn generate escape or avoidance behaviour. Escape or avoidance is followed by a reduction in anxiety, thus reinforcing the behaviour itself. Any 'neutral' stimulus that happens to impact on an individual at about the time that a fear reaction is evoked acquires the ability to evoke fear subsequently (Wolpe and Rachman, 1960).

This original statement has undergone many revisions. Some of the key ideas of the learning theory of anxiety were applied to clinical practice by Wolpe (1958) and included by Eysenck into his theory of personality (Eysenck and

Rachman, 1965). Gray (1986) regarded anxiety 'as a central state that mediates behavioural responses to stimuli that signal either punishment or non-reward'. Similarly to Gray, Seligman argued that certain kinds of fears such as for instance, fear of snakes, are readily acquired because of an inherent biological preparedness (Seligman and Hager, 1972). This view links in with LeDoux's view that certain stimuli are perceived and reacted to directly by the primitive brain, bypassing the neocortex and are thus non-cognitive and resistant to extinction (LeDoux, 1998). This view provides part of the rationale presented later in this thesis, claiming that strategies to manage anxiety effectively have to reflect the multi-faceted nature of the concept.

1.3.3 Cognitive models of anxiety

The notion of anxiety as cognition is a relatively more recent development. It is best represented in the writings of Lazarus (1968), Spielberger (1985) and most recently of Beck (Beck, Emery and Greenberg, 1985). These theories are fundamentally attribution theories, wherein the perceiving organism appraises certain aspects of the environment as dangerous and reacts accordingly. Appraisals result in a variety of negative cognitive processes.

Beck formulated the first systematic cognitive theory of the emotional disorders of depression and anxiety (Beck, 1967). In his cognitive theory of depression Beck implicated three cognitive constructs in the onset and the maintenance of the disorder: schemas, the negative cognitive triad, and cognitive distortions or errors. Schemas are cognitive structures that serve to filter the incoming information; they guide attention, expectancies, interpretation and memory functioning. According to Beck, individuals who are vulnerable to experiencing

depression have developed negative schemas. Beck (1976) extended these constructs, particularly involving the concept of negative schemas, to the anxiety disorders. Whereas the schemas of individuals who are vulnerable to depression involve concepts of loss and failure, the schemas of individuals at risk of experiencing anxiety involve schemas of danger and threat.

Beck's approach influenced theoreticians such as Clark (1987), Barlow (1988) and Salkovskis (1985). Their newer theories are less 'pathological' and regard many problems as understandable errors of normal functioning rather than signs of deep-rooted abnormalities. These theories, which emphasise the continuities between normal and 'abnormal' anxiety, also represent the position taken in the present study.

1.3.4 Biological models of anxiety

Over the past decade, major advances have occurred in our understanding of the brain mechanisms underlying emotion. One new approach to emotions and cognition is the work by LeDoux (1998). In his analysis of cognitive-affective interactions in the brain LeDoux distinguished between two classes of computations: cognitive and affective. Cognitive computations yield information about a stimulus itself and its relationship to other stimuli. Affective computations, on the other hand, yield information about the biological significance of the stimulus for the individual at that moment (for instance, a snake being a threat to safety). The affective computations lead to some form of behavioural, autonomic and humoral response (e.g. increased heart rate, hormonal response or running away). LeDoux claimed that for fear and also other emotions, emotional responses and conscious emotional experiences are

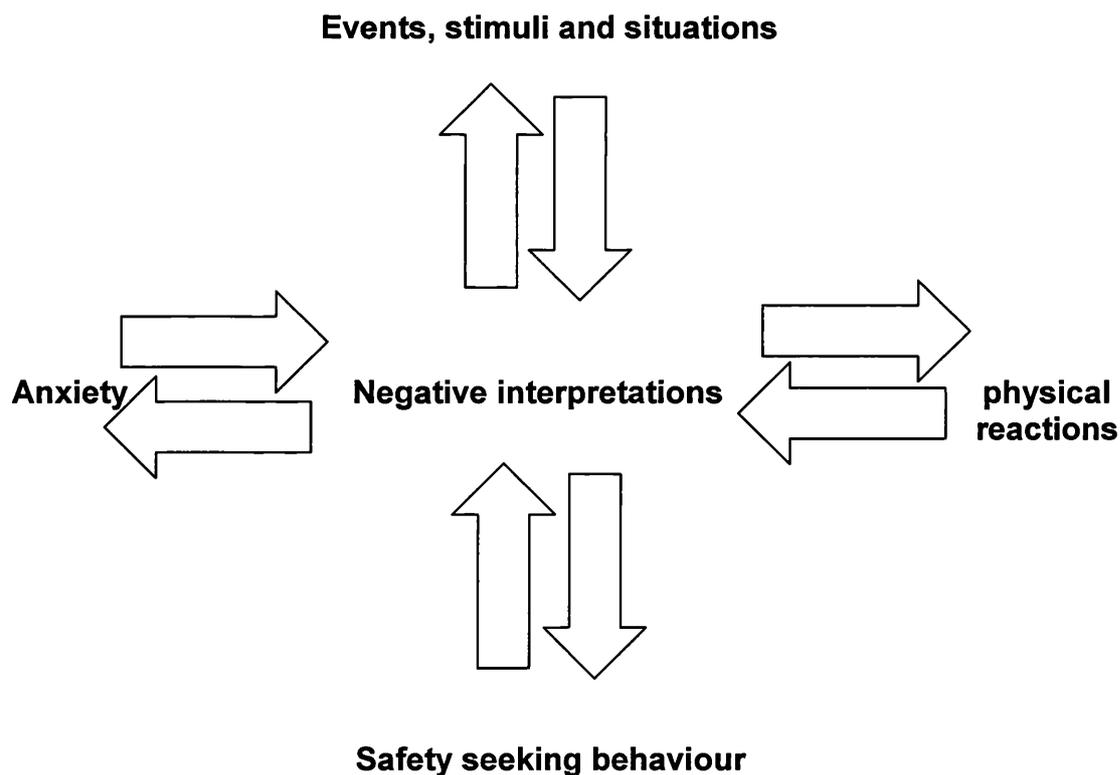
consequences of the affective computations performed on stimuli by a network in the amygdala. The amygdala receives input from the visual, auditory, olfactory and other sensory areas of the cerebral cortex. Interruption of the inputs to the amygdala from the modality-specific cortical areas leads to an inability to compute the emotional significance of stimuli in the corresponding modality. The amygdala also receives sensory information directly from thalamic sensory relay structures. Thus, there is both a 'quick and dirty' and a slower and more accurate route to the computation of the affective significance of stimuli in the amygdala. LeDoux's research was the first to work out neural pathways for feelings that bypass the neocortex.

LeDoux's analysis of cognitive affective interactions in the brain is a multi-level theory of cognition and emotion. Multi-level theories mediate the communication between psychological and biological levels of analysis. They suggest that in trying to understand the emotional effects of events, it is helpful to consider separately the contributions from different kinds of information and interactions (Teasdale, 1999). Multi-level theories explain dissociations in cognition-emotion relationships, i.e., they explain better than uni-level theories how we can think 'coolly' about emotive topics without the affect that would normally occur if we actually experienced these events. People do not always feel anxious if they refer to the concept.

This multi-level view corresponds most closely to the multimodal intervention model of anxiety management (wheel model), shown in Figure 2 overleaf. This model is based on and developed from Salkovskis (1996) cognitive model of the persistence of anxiety, the 'vicious flower model', illustrated in Figure 1 below.

Salkovskis places the cognitions in the centre of the 'flower' and the maintenance factors of negative cognitions such as events, physical reactions, behaviours and anxiety in the 'petals' of the flower, interacting with these cognitions. This interpretation does not take account of the interactions of the 'petals', i.e. direct interactions between anxiety and physical reactions and between anxiety and behaviour.

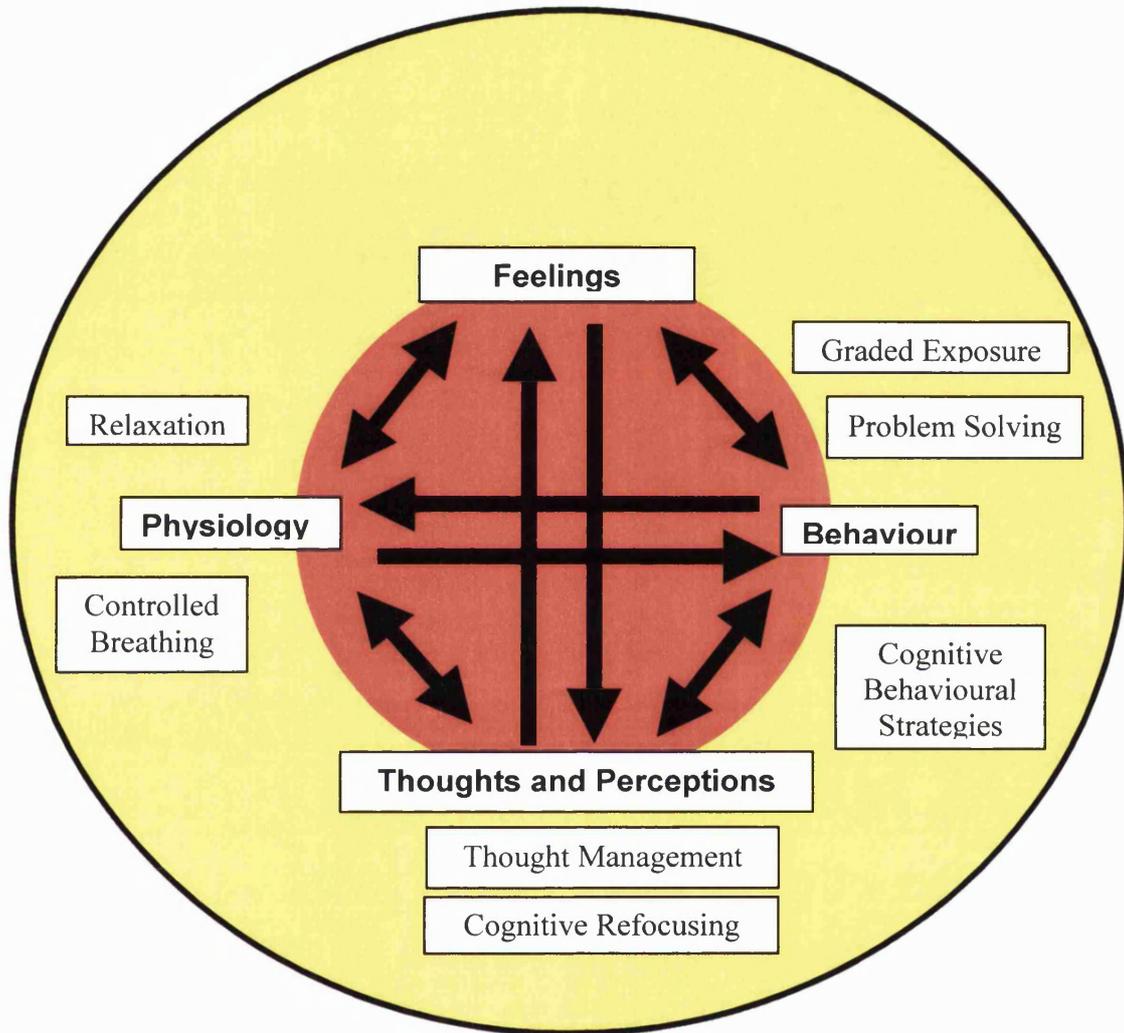
Figure 1 – The Salkovskis cognitive model of the persistence of anxiety: 'the vicious flower' model



The 'wheel' model in Figure 2 overleaf takes account of the interactions between the 'petals' such as direct interactions between anxiety and behaviour and anxiety and physical reactions. The 'wheel' model does not claim to be a causal model. It is an attempt to explain and to structure multi-level, general

representations of anxiety. It is a framework whose elements are schematic and not of equal value. The model is transactional in that every element influences every other element in it.

Figure 2 – Multimodal intervention model ('wheel' model)



The Point of Entry in the cycle (the choice of intervention) depends on:

- Anxiety (Arousal level)
- Individual Differences
- Context and Task

Key:

| | |
|---|------------------------------|
| | Coping strategies (examples) |
| | The Individual |
| → | Direction of Interactions |

1.4 Anxiety in children and young people

Fears and anxieties are a normal part of child development. Many fears such as fear of strangers or fear of the dark are fleeting and age related. On the contrary, from an ethological perspective, fears and anxieties help children adapt to the world in which they live (Kendall et al. 1992). This is also the author's view. Fears are adaptive as long as they are moderate. Too little or too much fear can interfere with everyday functioning.

1.4.1 Incidence of anxiety in children

In overanxious disorder, the gender ratio is approximately equal until adolescence, after which time the disorder predominates in girls (Werry, 1991). Overanxious disorder seems to predominate in Caucasian children (Last et al, 1987b) from middle and upper class families (Francis et al, 1992). Social phobia may be more prevalent in girls than boys. However, these figures need to be viewed with caution, since they could be distorted by referral patterns as well as ways and ease of expressing anxiety. Anxiety may be masked by the way it is expressed in some children. Excessive acting out or apparent disaffection or indifference may well disguise unduly anxious feelings. Particularly for adolescent boys it is not 'cool' to admit to feeling, let alone feelings of anxiety. There is lack of evidence as to how developmental aspects and gender characteristics affect anxiety in subclinical populations. The present study may be able to shed some more light on gender issues.

1.4.2 Anxiety and learning

Alongo et al (1994) demonstrated that children in the first grade who report anxiety symptoms but do not meet criteria for anxiety disorder may have substantial impairment in reading and maths achievement. There is a voluminous literature on maths anxiety, a discussion of which would be beyond the scope of this thesis. There is evidence that the negative effect of maths anxiety may have considerable life impact, and that levels of maths anxiety have been shown to predict High-School course enrolment and later career choices in American teenagers (e.g. Hembree, 1990). Anxiety symptoms in association with reading and maths disorders warrant assessment and intervention as part of an effort to improve achievement and to improve the recruitment of maths teachers.

1.4.3 Assessment of anxiety in children

Most adults have reached plateaus with respect to biological, cognitive and social development. Children are constantly changing and developing and their difficulties must be assessed not only in relation to their past history, but also in relation to norms of their age and other problems at a particular time (Achenbach, 1985).

Clinical assessment of anxiety in children has been modelled largely on adult assessment, including projective techniques, self-report questionnaires, fear inventories, physiological measures and avoidance tests. The interactions between individual and developmental differences complicate the assessment of children's anxiety. For younger children most assessment data are provided

by carers/parents. During middle childhood teachers become an important source of assessment data. These reports are affected by the constraints of inferences made. They can be even more variable for adolescents whose more complex problem behaviours and gradual detachment from adults make them less open to observation.

For this reason the multi-baseline assessment in this study is based on as many sources of information as possible, including behavioural measures, self-reports and teacher observations.

1.5 Test or examination anxiety

1.5.1 A short history of test anxiety research

In his comprehensive overview of the subject, 'Test Anxiety, the State of the Art', Zeidner (1998), commented that examination anxiety, or test anxiety as it is labelled in most of the research literature, has been the focus of intensive research since the sixties and that it is the most widely studied specific form of anxiety in the literature (Zeidner, 1998). Zeidner listed 1000 publications on the topic alone in the period from 1950 to 1994, including the work of the Society for Test Anxiety Research (STAR) founded in 1980. The major aim of this international Society was to stimulate research in the field, and the Society's annual meetings were recorded in a series of publications between 1982 and 1987, entitled 'Advances in Test Anxiety Research', (Van der Ploeg, Schwarzer, Spielberger, et al.). These publications cover an array of conceptual and methodological perspectives and variables, to name just a few: Test anxiety and: helplessness, fear of failure, worry and emotionality, task difficulty, cognitive interference, attribution theory and procrastination.

1.5.2 Definitions

Test anxiety is a complex and multi-dimensional construct, embodying a set of phenomenological, physiological and behavioural responses. In any given test situation test anxious individuals may experience all, some or none of these reactions. (Zeidner, 1998).

It is the view of the author that, consequently, access to a mixed menu of strategies would be most likely to be effective in dealing with test anxiety. The definitions and models of test anxiety mirror the evolution of theoretical models of anxiety in the literature.

1.5.3 Main models of test anxiety, listed by Zeidner (op.cit.), include the following:

1.5.3.1 Drive models (Spence and Spence, 1966)

This model postulates that when there is too much drive or arousal in a particular learning or evaluative situation, performance is compromised, particularly if the performance is complex (Zeidner, op.cit.) This model served as a conceptual framework for the bulk of experimental investigations of anxiety and learning until the mid-sixties. However this model ignores many other aspects of the test situation such as the individual's beliefs and situational factors and its application for practical educational settings is limited. The model is mechanistic and does not lend itself well to an explanation of test anxiety.

1.5.3.2 Deficit models

Deficit models associate anxiety with some form of deficit – attentional deficit or academic skills deficit.

Cognitive interference model

Sarason (1980a) viewed cognitive interference as a mediating variable for performance deficits in test anxiety. According to Sarason, heightened self-preoccupation interferes with task performance, and anxious individuals are using up working memory capacity with task irrelevant processing. This view is supported by substantial empirical evidence from both experimental and field research.

Skills deficit model

This model claims that anxious students are deficient in a variety of study and test-taking skills. However, the evidence for a relationship between test anxiety and study skills is contradictory, since to name just one objection, students with good study skills are often reported to be experiencing cognitive interference during test situations (Naveh-Benjamin, 1987).

1.5.3.3 Cognitive motivational models

Self-regulation model of test anxiety (Carver and Scheier, 1984)

In this model test anxiety is viewed as a maladaptive coping process. High test-anxious individuals are doubtful about being able to perform due to anxiety and tend to focus primarily on avoiding the experience of anxiety rather than on performing well. This thinking is in line with the claims of the self worth model (Covington, 1992).

Self worth model (Covington, 1992)

According to this model examination anxiety can be explained by the fact that the individual is trying to maintain self worth and a positive self-image, particularly when at risk of academic failure (Covington, 1992). In our culture an individual's sense of self-esteem is often equated with ability. Since failure tends to lower others' views of an individual's ability, failure is to be avoided at all costs. Most pupils would prefer to be seen to achieve via ability rather than effort. If the pupil tries hard and fails the exam, especially if the exam is considered to be easy, the pupil is perceived as of low ability and suffers a loss in self esteem. According to the self worth model, exam anxiety is centered on the possibility of failure triggered by the implication of low ability.

Zeidner (op.cit) lists as limitations of this model the fact that it fails to specify when test anxiety is due to perceived lack of ability and when it is mainly a defence mechanism.

1.5.3.4 Transactional models

This dynamic process model is based on the transactional theoretical framework proposed by Lazarus (1966, 1984). This model emphasises the interaction among the various elements of the stress process: within person variables such as affective reactions, coping behaviours as well as situational variables. This model points both to cognitive focused and emotion focused intervention strategies as helping the test-anxious individual to cope with the many aspects of test anxiety. For these reasons this model is closest to the model of test anxiety proposed in this study.

1.5.3.5 Friedman's model (1997)

Based on the findings of a study carried out with adolescents, Friedman and Bendas-Jacob (1997) defined test anxiety in adolescents as follows: *'Test anxiety is worry of suffering a reduction in one's self – image and self – efficacy, particularly its reflection in the eyes of significant others, concurrent with the obstruction of cognitive processes and excessive physical and mental discomfort'*.

1.5.3.6 An alternative model

According to Zeidner (op.cit.) few of the existing models of test anxiety are derived from research in the area of test anxiety proper, but rather adapted to the field of test anxiety research from other, broader domains. The present study, which investigates test anxiety and performance in a real life examination situation, could possibly shed some more light on models of test anxiety.

The model put forward in this thesis proposes that physiological, cognitive and social components are important factors mediating examination anxiety.

In addition, the model presented here is a threshold model, in that it postulates that, once physiological arousal has reached a critical level, cognitive processes are ineffectual in controlling anxiety, because they are short-circuited according to the processes suggested by LeDoux (1991) and further discussed by Goleman (1996). For this reason the individual needs at his and her disposal a range of strategies, physiological strategies such as breathing and relaxation strategies to reduce arousal level during any critical stages of examination anxiety as well as more cognitive – behavioural strategies such as thought

management and problem-solving strategies for the less acute and more preventative phases.

The model of examination anxiety proposed in this study takes into account the reciprocal interaction patterns of physiological, behavioural and cognitive factors and their influence on the emotions.

1.6 Methodological aspects

1.6.1 The assessment of examination anxiety

Self-report instruments are the most widely used measures of examination anxiety referred to in the literature (Allen, 1980). However they are indirect measures based on inferences which have an imperfect correlation with behaviour and thus affect the reliability and validity of any research. As with all cognitive explanations of emotions through introspection, there are methodological obstacles to the definition and measurement of the relevant cognitions which are at the core of these explanations (Rachman, 1998). These are the shortcomings of most traditional examination anxiety research. The literature on child therapy recommends multimethod assessment (Kazdin, 1986, Ollendick, 1986 and Kendal and Morris, 1991). Multiple, parallel measures including physiological, behavioural as well as cognitive measures are more likely to lead to valid findings. In addition, multiple methods of measurement would permit the deconstruction of mixed intervention packages and to separate out their effective components. For these reasons multi-method assessment was used in the present study.

1.6.2 The effectiveness of interventions

Zeidner (op.cit.) listed the following desiderata for future studies: precise specification of the rationale, contents and therapeutic procedures used in each type of intervention programme, adequate randomisation of subjects to treatment and control groups, use of appropriate nontreated control groups (placebo, etc.), triangulation of treatment effects through multiple methods of measurement (verbal/cognitive, physiological, behaviour/performance) and designation of a constant number of sessions. This study tried to follow Zeidner's recommendations.

1.6.3 Participants

According to King and Ollendick (1989) few studies involved participants who were referred to counselling for clinical services. Most studies typically used groups of students with no indication of the degree of severity of their test anxiety based on pre-assessment scores.

The present pilot study preselected the potential participants from a larger pool of pupil participants with a general 'self-management' screening questionnaire, which included several types of questions, including anxiety ones. The participants chosen for the pilot study were the volunteers with the highest anxiety scores on their screening questionnaire responses. The main study used a random sample of participants.

1.6.3.1 Control groups

In a review of the literature Tyron (1980) stated that failure to include a proper control group was the single most frequent threat to internal validity in test anxiety treatment variations.

Both the pilot and main study included a placebo control group matched for time and amount of attention given, making intertreatment comparisons where exposure was controlled for.

1.7 Intervention strategies

Similar to the models for test anxiety, interventions are essentially mirroring the development of the behaviour therapies (Spielberger and Vagg, 1987).

Most methods are normally embedded in a multi-dimensional context. At present, a combination of procedures seems to best represent the true nature of the test anxiety intervention process (Meichenbaum, 1976). The present study followed this line of thought in that it was comparing relaxation strategies with cognitive behavioural strategies and mixed strategies.

Table 1 summarises the therapeutic methods and intervention techniques as listed by Zeidner (op.cit.).

Table 1 - Specific therapeutic techniques, structured by therapeutic methods and orientations

| <u>Treatment orientations</u> | <u>Therapeutic methods</u> | <u>Intervention techniques</u> |
|-------------------------------|----------------------------|---|
| Emotion-focussed | Behavioural therapies | Anxiety reduction Biofeedback Relaxation Systematic Desensitization Anxiety management Training |
| | Integrative therapies | Modelling Cognitive-behaviour Modification Stress-inoculation training |
| Cognitive focussed | Cognitive therapies | Attentional training Cognitive restructuring |
| Skill-focussed | | Study-skills Training |

1.7.1 Relaxation

Relaxation is a popular and frequently used technique in its own right as well as in combination with other strategies. There is some evidence that if a person knows when and how to apply relaxation, subjectively experienced anxiety and

tension are lessened (Rosenthal, 1980). Earlier studies evaluating relaxation in test anxiety demonstrated that relaxation alone was ineffective in reducing anxiety (Johnson and Sechrest, 1968). A more recent meta-study by Hembree (1988) concluded that relaxation was effective in reducing test anxiety. However, the effects of relaxation on performance were found to be negligible. For this reason the present study compared relaxation with other single and mixed strategies.

1.7.2 Cognitive behavioural strategies (CBT)

A review of the literature by Hembree (1988) concluded that cognitively based treatment strategies are more powerful than direct behaviour therapies when looking at the relationship of test anxiety and performance.

Cognitive behavioural interventions have been adapted from adults to children by therapists such as Kendall (1994), Ronen (1997), Graham (1998) and Squires (2001). As the work with children progressed, the field developed differently from CBT with adults. Most of the work with children addressed one specific problem such as the fear of the dark. CBT applications thus far have not adequately converged to provide comprehensive assessment and treatment techniques to deal with anxiety disorders (Ronen, 1997). The reservations expressed by Stallard and quoted earlier confirm this to some extent, calling for a theoretical framework and more methodologically sound research to understand cognitive processes in children and to clarify whether cognitive behaviour therapy is the treatment of choice for which problems (Stallard, 2002).

The present study aimed to add to knowledge by investigating the effectiveness of CBT for examination anxiety. The study followed the thinking of Ronan and Deane (1999) who are of the opinion that anxiety is a normal and adaptive part of every child's functioning. Consequently, treatment programmes are not designed as a 'cure' for anxiety (Kendall 1992). Rather, they should be designed to help children and young people reduce unwanted anxiety to more manageable levels.

1.8 Critical studies

1.8.1 Sud's and Prabha's (1996) study

One of the studies that had immediate bearing on the proposed research was a study by Sud and Prabha (1996) of Pradesh University, India. This study investigated the effectiveness of cognitive/relaxation therapies with a nonclinical sample of high and low test-anxious girls. Sud and Prabda investigated worry (the cognitive component) and emotionality in a sample of 80 fourteen-year-olds. The girls were divided into high and low worry and emotionality groups and assigned to three conditions: attentional skills training (a cognitive therapy method), relaxation training and a non-treatment control condition. The girls completed the Hindi version of the Test Anxiety Inventory (Spielberger, 1980) and the 'Present Affect Reactions Questionnaire (Ender, 1980), a measure of state anxiety. Before and after the treatment the girls completed an anagram task. The study found that cognitive training improved the performance of highly anxious girls on the anagram task, but that relaxation did not.

A critique of Sud and Prabhda's study

This study confirmed some findings in the literature on the limited effects of relaxation as a single intervention. However the girls received only three hours of intervention, and this intervention may have been too short for some treatments to become effective. The effect on performance was assessed by a 10-minute anagram in a small group setting. This situation is artificial and may not be comparable to a real life examination situation. It does not appear to be a realistic simulation of an examination situation. Apart from the effects of success or failure in this task on the participants' self-esteem there appears to be less at stake for them. Real life exams affect the participants' future, such as being or not being accepted by the College of their choice because of exam grades. In addition, Sud and Prabha's study is not comparable to the present study, since it did not investigate mixed interventions for test anxiety.

Therefore, there are few studies cited in the literature, which combine the elements of the present study. However, since this study was first begun in 1999, there have been an increasing number of initiatives aimed at adapting cognitive behavioural approaches to school-based settings; an example carried out in a mainstream setting was reported by Squires (2001).

1.8.2 Squires' (2001) study

This project found that cognitive behavioural approaches led to measured improvement in teacher ratings of behaviour and pupil ratings of self-control. This project targeted a mixture of pupil types, including pupils who might be disruptive in class, either overtly or covertly. The project did not specifically focus on anxious pupils, nor did it use performance measures.

1.8.3 Barrett and Turner's (2001) study

One critical study, which most closely resembles the present one and which, in fact, had also been published after this research was begun, is a study by Barrett and Turner (2001) on the prevention of anxiety symptoms in children. Barrett and Turner presented preliminary data on the effectiveness of a universal school-based intervention for the prevention of anxiety symptoms in primary school children. They assigned a sample of 489 children aged 10 to 12 years to one of three intervention conditions: a psychologist-led preventative intervention, a teacher-led preventative intervention and a standard curriculum monitoring condition. The intervention offered was a 12 – session cognitive behavioural intervention, the Friends for Children programme, which was originally based on Kendall's (1994) Coping Cat programme. Barrett and Turner found that participants in both intervention conditions reported fewer symptoms of anxiety at post-intervention than participants in the control condition. Barrett and Turner concluded that universal programmes for childhood anxiety were promising intervention strategies that could be successfully delivered to a school-based population and integrated into the classroom curriculum.

Critique of the Barrett and Turner study

Barrett and Turner's research has many elements in common with the present study. The Australian researchers investigated interventions for anxiety in a school setting with subclinical populations and with an attention control group. The measurements consisted of two self-report measures of general anxiety, the Spence Children's Anxiety Scale (SCAS; Spence, 1997) and the Revised Manifest Anxiety Scale (RCMAS; Reynolds and Richmond, 1978) and the

Children's Depression Inventory (CDI; Kovacs, 1981). However, the study did not use behavioural measures.

Further differences between Barrett and Turner's and the present study were the following: the present study focussed on adolescent participants, it compared three treatment conditions (relaxation vs CBT vs mixed) and it used triangulation of measurement: behavioural, self-report (cognitive) and behavioural observation. The present study focussed on a more specific aspect of anxiety (test anxiety) rather than on general anxiety. Barrett and Turner's statistical analysis was carried out by parametric tests, although their data are provided by a rating scale. In addition, the study was carried out in a different culture.

The present study complements and extends Barrett and Turner's study further by introducing a wider range of intervention methods and more comprehensive measurements which include performance measures. The present study also focuses more specifically on a particular aspect of anxiety (examination anxiety), which has considerable bearing on the well being and success of learners. The present study aims to overcome some of the gaps in research on examination anxiety carried out so far.

1.9 Main conclusions from the literature review

1.9.1 Gaps spotted in research on examination anxiety.

This review of the considerable body of literature on anxiety in children and young people and on examination anxiety in particular, demonstrates that, in spite of this wealth of studies, there are still many gaps in our knowledge and many unanswered questions.

There are only very few studies carried out in the real world and in a real school setting. The emphasis in the literature is on the negative aspects of anxiety rather than on the positive, energising aspects, thus pathologising strong emotions. The levels of anxiety investigated are mainly clinical, with participants who are referred youngsters rather than ordinary pupils in a mainstream school situation. Most of the studies carried out so far, with the exception of Barrett and Turner's study (op.cit.) are clinic-based rather than school based. They are targeted at one specific disorder rather than being universal, preventative studies. Studies carried out so far focus on adults and on older participants such as college students as well as on younger children. Few studies look at examination anxiety in adolescents, who have a particular need of interventions to manage their anxiety. Most studies, so far, use a more limited range of measurements such as self-reports of anxiety rather than triangulation including behavioural measures. The range of interventions compared so far covers relaxation or CBT, but does not look at mixed strategies. Many CBT interventions are not carefully scripted in order to be transparent and replicable.

The literature, in particular Zeidner (op.cit.), describes the uncharted territories in the field which needs to be explored by future research, as some of the following: refining conceptual models, developing useful taxonomies, furthering the understanding of test anxiety and its long-term outcomes, uncovering the developmental origins of test anxiety, assessing the effect of school environment on test anxiety, determining incidence and individual differences, specifying more clearly the test anxiety – performance relationship and improving test anxiety interventions and research.

Zeidner's (op.cit.) recommendations and the additional gaps in research in this field identified in the literature review, combined to inform the research questions in the present study. Particular gaps identified were the need for clarification of the exam anxiety concept as well as the relationship between exam anxiety and exam performance. The need to develop evidence based interventions for excessive exam anxiety for older pupils in real school settings was perceived as an additional gap.

Registering these gaps identified in the literature, the present study was aiming to address some of them and formulated the following research questions:

1.9.2 Key research questions and hypotheses

What interventions are most helpful in enhancing the self-management of examination anxiety in adolescents?

Is there a single most helpful intervention, or would a mixed approach be more effective?

The hypotheses below were informed by gaps emerging from the literature review, in particular the need to develop evidence based interventions for excessive examination anxiety for older pupils in real school settings. Hypothesis number 1 was influenced by the debate in the literature about the effectiveness of multimodal or mixed intervention strategies in the management of anxiety. It was guided by the recommendations of several researchers such as Ollendick and King (1979), Kazdin (1997) and Musch and Broder (1999) to

investigate multimodal strategies further. Research evidence on the effectiveness of cognitive behavioural intervention strategies for the management of anxiety in young people as well as experience in my practice as an educational psychologist with these intervention methods informed Hypothesis number 2.

Hypotheses

Hypothesis 1

Mixed intervention strategies will be more effective than single strategies or attention control strategies, in reducing examination anxiety in secondary school pupils and in improving examination performance.

Hypothesis 2

Cognitive behavioural strategies will be more effective than relaxation strategies or attention control strategies in reducing examination anxiety and enhancing examination performance in secondary school pupils.

The pilot study described in Chapter 2 took into account the findings of the literature review and the need for an increased understanding of the research questions listed above.

Chapter 2 - Pilot Study (September 1999 – August 2000)

2.1 Introduction

2.2 Purposes of the pilot study

2.3 Research hypotheses

2.4 Participants

2.5 Procedure

2.6 Design

2.7 Measures

2.8 Results

2.9 Discussion of the pilot study findings

2.1 Introduction

The pilot study was a small-scale try-out of the intended protocol for the main experimental phase of the research project on self-managing examination anxiety in schools. In this pilot, one year group (Year 11) of a local LEA Upper School was screened for examination anxiety and pupils selected from this group of volunteers received training in the self-management of examination anxiety. The project used a between-group design with participants randomly assigned to three experimental groups and one attention control group.

2.2 Purposes of the pilot study

2.2.1 Conceptual aims

One aim of the pilot was to operationalise the theoretical constructs of the examination anxiety model adopted in this study.

A further aim was to tease out and deconstruct variables defining the research questions in order to improve the design in the main study.

2.2.2 Practical aims

The pilot was a dummy run of the main study. One purpose was to carry out a reality test of the strategies used in the main study. A further purpose was to test out procedures and measuring tools and to eliminate gross errors in measurement and design. Finally, the pilot allowed an opportunity to adapt intervention strategies from a clinical to a school setting and to establish relationships with staff of the participating school. In particular training procedures to enable young people to self-manage examination anxiety, initially in a small group setting, could be tried out.

2.3 Research hypotheses

An experimental pretest-post-test design was used to test the research hypotheses stated in the introduction to this thesis. These were as follows:

- 1. Mixed intervention strategies will be more effective than single strategies or attention control strategies in reducing examination anxiety and in enhancing examination performance in secondary pupils.*
- 2. Cognitive behavioural strategies will be more effective than relaxation strategies or attention control strategies in reducing examination anxiety and in enhancing examination performance in secondary pupils.*

2.4 Participants

2.4.1 Selection of participating schools

Four local LEA secondary schools were approached by the researcher, including a mixed Grammar School, two single-sex Grammar Schools (one for girls and one for boys) and an Upper School. The Upper School participating in the pilot was selected at the recommendation of its link educational psychologist because it offered most flexibility and commitment to the project and because its current need appeared to match the aims of the project.

2.4.2 Sample

The final sample of 32 participants was selected from a target population of the whole of year 11 from the pilot Upper School (198 pupils). Year 11 pupils were

selected because this age group was thought to be one of the groups most under exam pressure due to the GCSE examinations (as well as the general stresses of adolescence).

First screening of participants

A screening questionnaire was developed jointly by senior teachers of several schools and the researcher specifically for this study, to preselect participants from the target population. This questionnaire covered a variety of topics in the pupils' lives, with some anxiety responses embedded. It was the concerted opinion of the senior teachers that a screening questionnaire containing only anxiety focussed questions would not find volunteers for the project and that some pupils would not have answered the questions honestly. It was felt that for the screening phase a more general questionnaire on the self-management of aspects of the youngsters' lives, tailor made for this purpose, was more appropriate. For this reason the questionnaire contained some filler questions on topics such as leisure time, study skills and time management. In addition, the examination anxiety questionnaires found in the research literature were felt not to be appropriate, since they were too clinically oriented or they were not pitched at the right age level. The screening questionnaire developed for the study was pitched specifically at adolescent level and tried out on adolescents in draft form. This questionnaire will be described in more detail under the heading of 'Measures'. The screening questionnaire was administered to all Year 11 forms in two schools. It was originally trialled in the boys' grammar school in which it was first developed and a further developed version was administered in the pilot school by the Form Tutors to 198 Year 11 pupils. In addition, the Form Tutors of the pilot school rated their pupils as to high,

medium and low risk of experiencing examination stress. There was a statistically significant correlation between the responses to the anxiety-loaded questions of the screening questionnaire and the teacher ratings. This provided cross-validation of the screening tool developed.

A total of 92 pupils volunteered to take part in the project in the pilot school. Some of the reasons listed by the pupils for wanting to participate were, to gain confidence, to be able to relax, to gain good qualifications, to get more motivated.

The 92 volunteers in the pilot school were ranked for their scores on the anxiety loaded questions and their teacher ratings for high risk of exam anxiety and the 32 pupils with the highest scores on both measures were selected for the pilot study. These 32 pupils were then given a further anxiety examination questionnaire developed in Israel (Friedben Test Anxiety Scale - FTA), which is described in more detail under 'Measures'. The participants were matched for their anxiety level scored on the 'Friedben' questionnaire as well as on teacher ratings and gender and randomly allocated to four conditions (three experimental conditions and one attention control condition). Both the original group of 92 volunteers and the finally selected pilot group of 32 consisted of a relatively higher proportion of girls than boys - approximately two-thirds girls and one-third boys, since more girls had relatively higher anxiety scores. This mirrors the findings of Werry, (1991), that while the gender ratio of overanxious disorders, in particular of social phobia, is approximately equal until adolescence, it predominates in girls after that time.

Numbers of participants and group size

A chosen group size of eight followed the recommendations in the research literature on optimal numbers for small group interventions with adolescents in a clinical setting. Numbers had to be kept small, since interventions were still in the development phase and the pilot was administered by a single experimenter in limited time.

Consent

The School Head sought informed consent from the School governors and from the participants' parents. Consent was also sought from pupils aged above sixteen. The experimenter held an introduction session explaining the project in more detail to the whole group of volunteers before they finally committed themselves. It was made clear to the participants that they were able to opt out of the project at any stage, if they felt it was not meeting their needs, or if their course work commitments conflicted with project time. The participants were encouraged to share any concerns about the project with their Form Tutors. The researcher also sought and received permission from the UCL Ethical Committee. The participants of the control group were invited to try out some of the strategies after the completion of the pilot phase.

Confidentiality

All responses of individual pupils were confidential, but aggregated data were shared to inform the experimental phase as well as school policy and pastoral support.

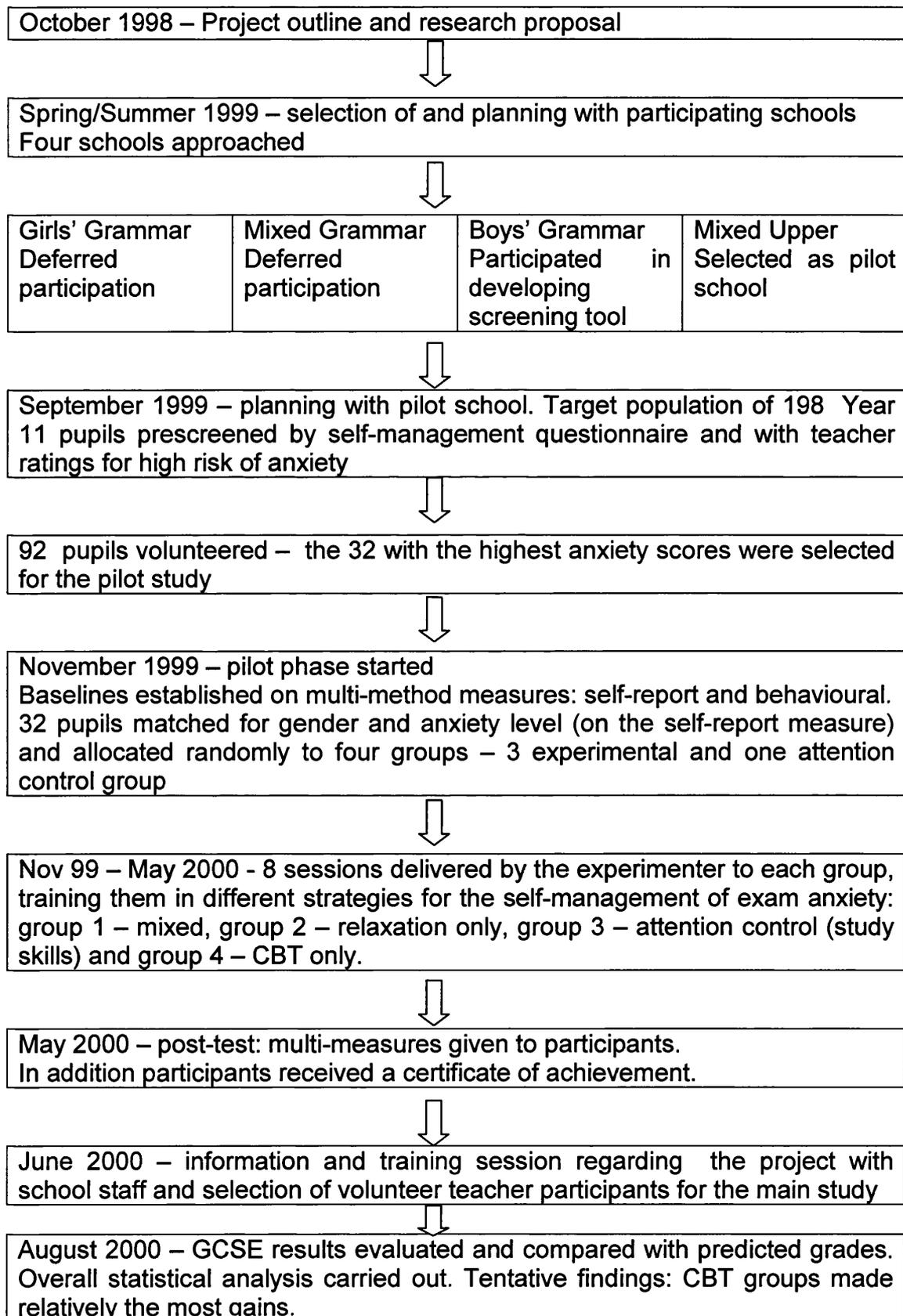
2.4.2 A summary of the pilot study

The pilot study outlined in the research diagram overleaf developed and evaluated a range of intervention strategies for the self-management of examination anxiety with small groups of volunteers from Year 11 of a large secondary school. The study compared three experimental groups of eight pupils with an attention control group.

The educational psychologist/experimenter delivered eight sessions to each group in the Youth Centre attached to the School, from November 1999 to May 2000. The evaluation of the study included pre-post quantitative measures (behavioural ratings of the pupils by their Form Tutors, self-report measures of exam anxiety (a newly adapted test anxiety questionnaire) and performance measures (a comparison between estimated and achieved GCSE results) as well as qualitative measures (anonymous teacher and pupil questionnaires).

2.5 Procedure

2.5.1 Diagram of the research process – pilot study



2.5.2 Time-line

The experimenter delivered a total of thirty-two sessions (eight 45-minute sessions per group), in the Youth Centre of the School. The participants came out of their lessons to attend the sessions with the permission of the School. The order of the sessions was rotated on a random basis, so that rigid patterns were avoided and participants would not always miss the same lessons. The sessions were timed for Friday mornings from November 1999 to May 2000, with breaks for holidays, mock exams and work experience of the pupils. At the completion of the eight sessions the participants were presented with a Certificate for their Record of Achievement.

The sessions were scripted in order to allow transparency and replicability, and homework was given between the sessions. Some examples of the scripted sessions are included in the Appendix.

2.5.3 Programme for the sessions

All three experimental groups received an introduction session covering the following points:

Introductory overview

- Definitions and recognition of anxiety in general
- Recognition and explanation of physiological aspects of anxiety
- Somatic, behavioural and cognitive responses to anxiety
- Depathologising and normalising anxiety.

In the remaining seven sessions the groups covered individual strategies as described below:

Programme in the individual groups

Learning outcomes – relaxation only group (experimental group 2)

To master a variety of relaxation techniques to deal with anxiety in a positive way;

To learn to become aware of body and breathing;

To learn to recognise tension and to be able to relax in any situation.

Examples of activities

Training in relaxation involved all senses and home practice.

Motoric relaxation: relaxed, balanced postures; in a chair and lying down;

Progressive muscle relaxation: tensing/relaxing and labelling body parts; Zen method of restoring the nervous system to its normal functioning;

Visceral relaxation: breathing exercises affecting heart rate; etc. 'wave breathing', full lung breathing;

Cue controlled relaxation: repeating calming words: 'I feel calm', 'I can do anything'; focusing on body parts to shut out stimuli;

Guided imagery: involving all senses: sitting by a tree in the woods, lying down on the beach.

Learning outcomes – cognitive-behavioural only group (experimental group 4)

To understand how the mind can influence mood and the stress a person feels;

To learn to recognise faulty, negative thoughts and to find evidence for more balanced positive thoughts;

To test out faulty thoughts through problem solving action;

To learn to reach goals by more than one route.

Examples of activities

'Mind over mood': explore faulty thoughts (i.e. systematic errors in logical thinking such as: 'I always fail!'), discussion of constructive versus destructive responses to anxiety, i.e. positive attribution shifts.

Overcome these thoughts by positive self-talk, coping/cue cards: what helps?

Thought records.

Problem solving: testing out faulty thoughts in reality.

Goal setting: Plan A and Plan B or C.

Mindmapping, reverse mindmapping.

Assertiveness training: role-play.

Themes: relationships, friendship. Look after yourself and other people.

Learning outcomes – mixed group (experimental group 1)

To master a variety of ways of dealing with anxiety in a positive way. These strategies were a mixture between physical relaxation techniques and 'mind over mood' strategies.

To acquire a number of 'tools of the mind' to control and prevent anxiety according to the situation (crisis or prevention).

Learning outcome - 'study skills' group (attention control, group 3)

To improve study skills.

Examples of activities

Revision and note taking

Time management

Exploring learning styles and ways to improve concentration.

2.6 Design

The research design was a between-groups design of three experimental conditions with an attention control group.

The independent variables in the pilot study were three types of intervention. These were a) relaxation only, b) cognitive-behavioural methods only and c) mixed methods. The dependent variable was examination anxiety as measured by three different measures, with examination performance chosen as the criterion dependent variable.

2.7 Measures

Pre and post measures were administered to the participants on a triangulation principle, covering cognitive (self-report), behavioural and performance aspects.

The following measuring instruments were used, some of them specially developed for the study.

2.7.1 General Screening questionnaire entitled 'Self-management questionnaire'

As referred to previously, the 'self-management questionnaire' was developed for the selection of the target population from Year 11 pupils, in consultation with the senior teachers of two secondary schools.

The questionnaire is a four-point rating scale consisting of 20 questions, 8 of which are disguised questions on anxiety. (A proforma of the questionnaire is included in Appendix 3).

The eight anxiety-loaded questions were customised for adolescents from the 'Spence Children's Anxiety Scale (SCAS). They covered the most commonly reported anxiety symptoms in the scale, such as 'I worry what other people think of me'. The Spence Anxiety Scale is a rating scale consisting of 38 items, six filler items and one open-ended, non-scored item. It provides an overall measure of anxiety. The SCAS was found to have high internal reliability and concurrent validity. The other questions covered study skills and leisure activities. In addition, the pupils could state on the questionnaire whether they wanted to volunteer for the project.

The self-management questionnaire was administered to all the year 11 pupils of a local boys' Grammar school (158 pupils, with 51 pupils volunteering). This school did not take part in the pilot eventually, because the school timetable could not be adjusted to the time demands of the project.

The questionnaire was also administered to all Year 11 forms of the pilot School (Mixed Upper School) which took part in the project. Out of 198 pupils 92

volunteered to take part in the pilot. The screening questionnaire was cross-validated by form tutors who rated their pupils as to high, medium or low risk of experiencing examination anxiety. The Spearman Test was administered and yielded a significantly positive correlation between teacher ratings and the responses to the anxiety-loaded questions of the screening questionnaire ($\rho = 0.2758$; $N=129$, $p < 0.002$, two-tailed), which indicates that the screening questionnaire was a valid instrument to use for the selection of participants and that teacher ratings of pupils' tendency to experience exam anxiety were relatively accurate.

2.7.2 Quantitative evaluation – multi-method assessment

Multi-method assessment was used with measures administered as base line in November 1999 and at the end of the pilot phase (May 2000). Measures were triangulated to include cognitive (self-report) measures, behavioural observation measures and performance measures. Physiological measures (pulse rate) were considered at the beginning of the pilot, but proved too time demanding and intrusive to administer in a school setting.

2.7.2.1 Self – report scale: 'The Friedben Test Anxiety Scale (FTA)'

This self-report scale measuring perceived test anxiety in adolescents was developed by Friedman and Bendas-Jacob of the Henrietta Szold Institute, Jerusalem. It is a 23 item scale consisting of the following three sub-scales: a) social derogation (worries of being belittled following failure on a test), b) cognitive obstruction (poor concentration, failure to recall, difficulties in problem solving, before or during a test) and c) tenseness (physical and emotional discomfort). The Hebrew version of the scale was found to have high internal

consistency (Cronbach's coefficient alpha for the scores in the whole scale and the three subscales were highly significant: .91, .86, .85 and .81 respectively). The scale was also found to correlate significantly with other test anxiety measures such as the Test Attitude Inventory (Spielberger et al, 1977).

The English version of the Friedben Test Anxiety Scale, customised to UK adolescents with the permission of the authors, was administered to the 32 participants with the highest anxiety scores on the screening questionnaire and the highest teacher ratings. (A proforma of the adapted scale is attached in Appendix 4). The Friedben scale was chosen because it corresponded most closely to the preferred model of examination anxiety adopted in this study.

2.7.2.2 Systematic behavioural observations – Conners' Rating Scales - Revised

These scales were based upon the most common problems presenting at Dr Conners' child clinic in the 1960ies. The scales have been extensively used and validated. They were revised in the 90ies to introduce the DSM-IV and its specific criteria for mental disorders. The revised Scales are a result of 30 years of research on childhood and adolescent psychopathology and problem behaviour. The Scales evaluate problem behaviours in children and adolescents by obtaining reports from teachers, parents, and adolescents. There are three types of scales, parent, teacher and self-report scales – each in long and short versions. The Short Form of the Conners' Teacher Rating Scales – Revised was administered to the 32 selected participants by their form tutors in November 1999 and in May 2000.

2.7.2.3 Performance measures – examination results

The participants' estimated and achieved grades of GCSE examinations were compared in August 2000.

2.7.3 Qualitative evaluation

At the end of the pilot phase, form tutors completed an evaluative questionnaire, blind rating the participants for any perceived change. (A proforma of the questionnaire is attached in Appendix 5).

In addition, the participants completed an anonymous evaluation form containing questions about the intervention sessions. This questionnaire was designed to assess whether the participants had been engaged and stimulated by the sessions and to yield qualitative information to improve the delivery of the sessions in the experimental phase.

2.7.4 Attendance

Participants' attendance rates varied. Most participants with 100% attendance were in the relaxation group and in the mixed group. Attendance in the study skills group dropped and this group was converted into a wait-list control group. The reasons given by the pupils who dropped out were varied. Some said they would rather have liked to have done 'the yoga stuff'. Others found the study skills sessions boring and not active enough. Communication between the group members about the activities in their respective groups is difficult to avoid in a school setting. Several members of the 'study group' said they were stressed because they were missing lessons. The label 'study skills' appeared to have had a connotation of boredom for some.

2.8 Results – pilot study

The results are reported in two sections. The first section reports quantitative measures, comparing the four groups on the measures listed above. The second section analyses qualitative feedback from participants and teachers.

2.8.1 Results – quantitative measures

2.8.1.1 Rationale for the choice of statistical tests in the data analysis

All the measures used in the quantitative evaluation of the pilot study results were rating scales yielding categorical data. Exploration by histogram showed that the scores on the three measures were not normally distributed. For this reason non-parametric tests were used in the data analysis of the pilot study in order to err on the side of caution. Effects and limitations of measurements will be discussed in more detail in the main study.

2.8.1.2 Conners' Teacher Rating Scales – Revised (short form)

Table 3 shows the mean pre-post differences per group and per factor on the Conners' Teacher Rating Scales.

Table 3 – pre-post differences in teacher ratings (means)

| Group | Factor 1 Oppositional | Factor 2 Inattention | Factor 3 Hyperact. | Factor 4 ADHD |
|---------------------|----------------------------------|---------------------------------|-------------------------------|--------------------------|
| 1 mixed | 20.06 | 16.75 | 14.50 | 15.13 |
| 2 relaxation | 13.19 | 10.36 | 16.25 | 15.94 |
| 3 control | 14.63 | 17.75 | 10.75 | 9.88 |
| 4 CBT | 18.13 | 18.44 | 24.50 | 25.06 |

The data in Table 3 above show that the participants in the mixed group (group 1) appear to have increased most in their oppositional behaviour, while the CBT group (group 4) appears to have increased most in hyperactivity and their ADHD index. An analysis of the pre-post differences in teacher ratings by factor ('Oppositional, Cognitive problems/Inattention, Hyperactivity and the Conners ADHD Index), using the Kruskal-Wallis shows a statistically significant difference between the groups. (Chi-Square = 10.56, DF 3, p=.014).

Figure 3 – Conners' Teacher Ratings – pre and post scores by factor

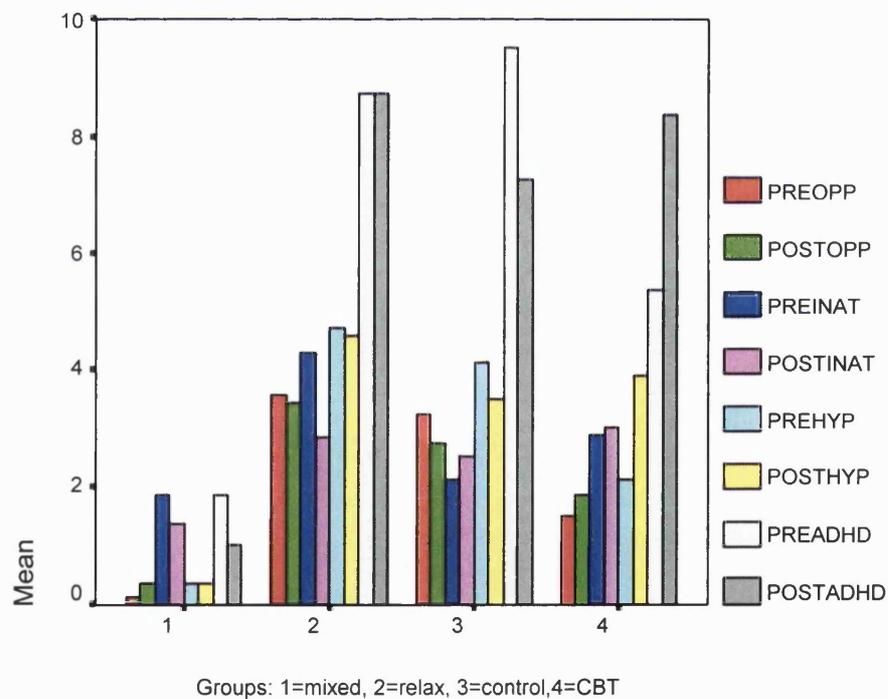


Figure 3 above illustrates the pre and post teacher ratings, again showing the four factors: 'Oppositional, Cognitive problems/Inattention, Hyperactivity and Conners' ADHD Index'.

2.8.1.3 Friedben Test Anxiety Scale (FTA)

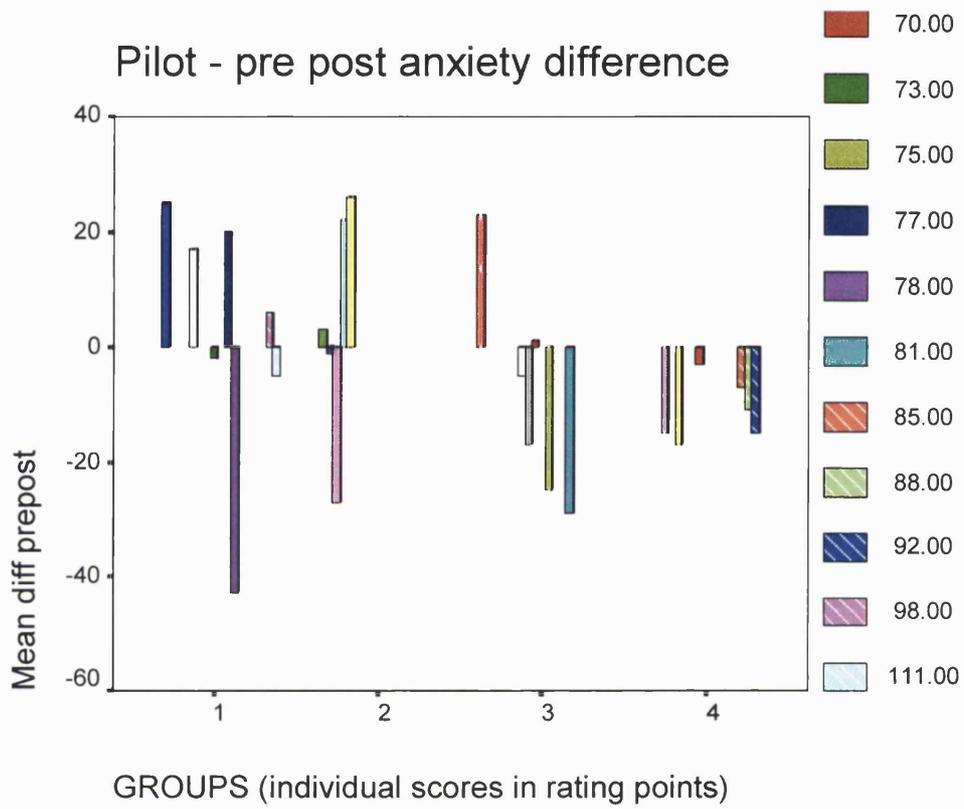
Table 4 - Pre-post intervention differences in self-reported exam anxiety levels scored on the Friedben Test Anxiety Scale (FTA)

| Group | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | |
|---------------------------|----|--------|----|-------|----|--------|-----|-----|--------|
| 1 Mixed | - | No sc. | -5 | 17 | 20 | 25 | 6 | -43 | -2 |
| 2 Relax | - | No sc. | 3 | -27 | 26 | 22 | -1 | 18 | No sc. |
| 3 Contr. | - | No sc. | 23 | -5 | 1 | No sc. | -29 | -25 | -17 |
| 4 CBT | - | -11 | -3 | No sc | -7 | No sc. | -15 | -17 | -15 |

Table 4 shows the difference between participants' pre and post-intervention responses on the FTA Test Anxiety Scale. Analysis by Kruskal-Wallis identifies no statistically significant difference between groups. (Chi-Square=4.603; (DF=3); p=0.20). An analysis of total pre-test scores against 0 by one-sample T-test yielded a score of $t=20.27$; (df=30); $p<0.0005$, suggesting that the participants rated themselves as significantly anxious about exams before the interventions. The fact that the conditions were not significantly statistically different does not necessarily mean that they are the same. However within group variation was considerable. In spite of this the CBT group (Group 4) showed relatively most reduction in self-reported exam anxiety levels, with consistently reduced scores, as is shown in Figure 4 below.

Figure 4 - Pre-post differences in participants' self-rating on the Friedben

Test Anxiety Scale (FTA)



2.8.1.4 Examination performance

The estimated and achieved grades of the participants in the GCSE examinations 2000 were converted into point ratings as follows: (A*=7, A=6, B=5, C=4, D=3, E=2, F=1, U=0).

Table 5 shows the ranking differences between estimated and achieved grades per group.

| Subject | Group 1 - mixed | Group 2 - relaxation | Group 3 - control | Group 4 - CBT |
|------------------|----------------------------|---------------------------------|------------------------------|--------------------------|
| English | 15.25 | 16.44 | 11.88 | 22.44 |
| Maths | 16.93 | 15.94 | 15.88 | 15.38 |
| Science | 21.29 | 16.88 | 9.63 | 16.88 |
| DT | 11.29 | 20.75 | 17.13 | 14.25 |
| Languages | 14.14 | 13.94 | 17.06 | 18.63 |

An analysis by Kruskal - Wallis showed non statistically significant differences between the four groups. However a comparison between the CBT group (Group 4) and the control group showed a statistically significant difference for English (Mann Whitney $U=11.0$, $N=8$, $p=0.01$, two-tailed). Some of the participants had improved their English results by two grades compared to estimated grades. The difference between the mixed group (Group 1) and the control group (Group 3) was verging on statistical significance (Mann Whitney $U=16.0$, $N=8$, $p=0.052$, two-tailed). There was no statistically significant difference between individual groups and the control groups in other subjects (Maths, Design and Technology and Languages).

Figure 5 – Differences between estimated and achieved GCSE grades - English

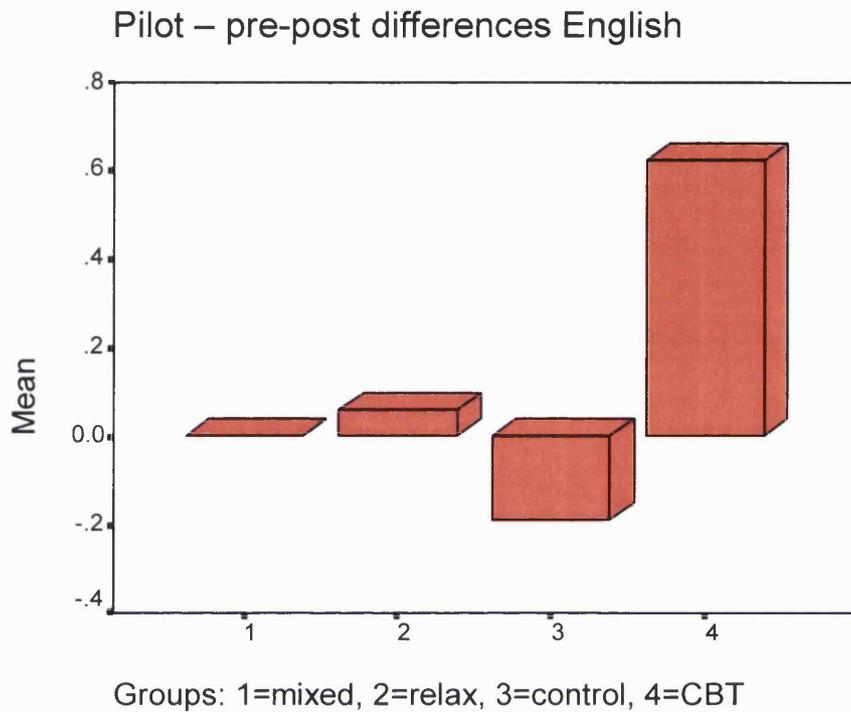


Figure 5 above shows the mean differences between the groups for estimated and achieved GCSE grades, converted to points, for English. The graph illustrates that Group 4 (CBT) achieved the relatively greater improvement in English grades, Group 2 (relaxation) did second best, Group 1 (mixed interventions) did third best and Group 3 (attention control) did relatively worst. There was a statistically significant difference between the CBT group and the control group.

2.8.2 Results – qualitative measures

2.8.2.1 Pupil evaluation form

Figure 6 - Pupil responses – qualitative questionnaire

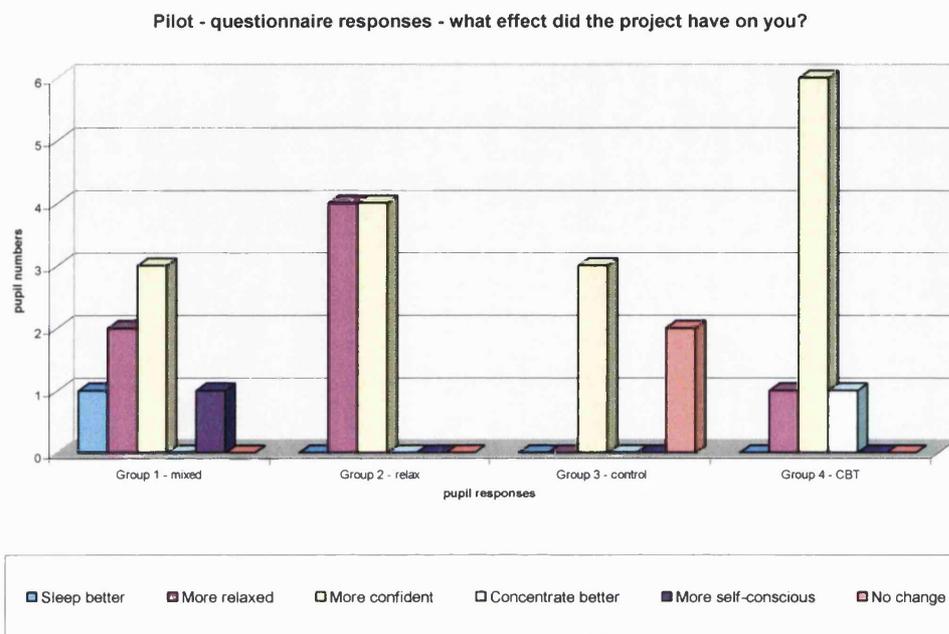


Figure 6 shows an analysis of responses given by pupils in categories of the most frequently mentioned comments. Results show that most participants in the CBT group felt that they had gained in confidence, while the relaxation group stated that they were feeling calmer and more relaxed. Two participants in the control group reported no change. The mixed group reported a variety of outcomes, including being able to sleep better as a result of the sessions. Participants said what they had liked about the experimental sessions was that ‘they were fun, informal, open, friendly and they could talk freely about their problems’. Others commented on the group spirit and the confidentiality of the sessions. Participants said that the sessions helped them in a variety of ways: to complete a swimming challenge, to ‘pull more girls’, to ‘learn to ignore people who take the piss out of me’, to calm down and to ‘play the piano in public’.

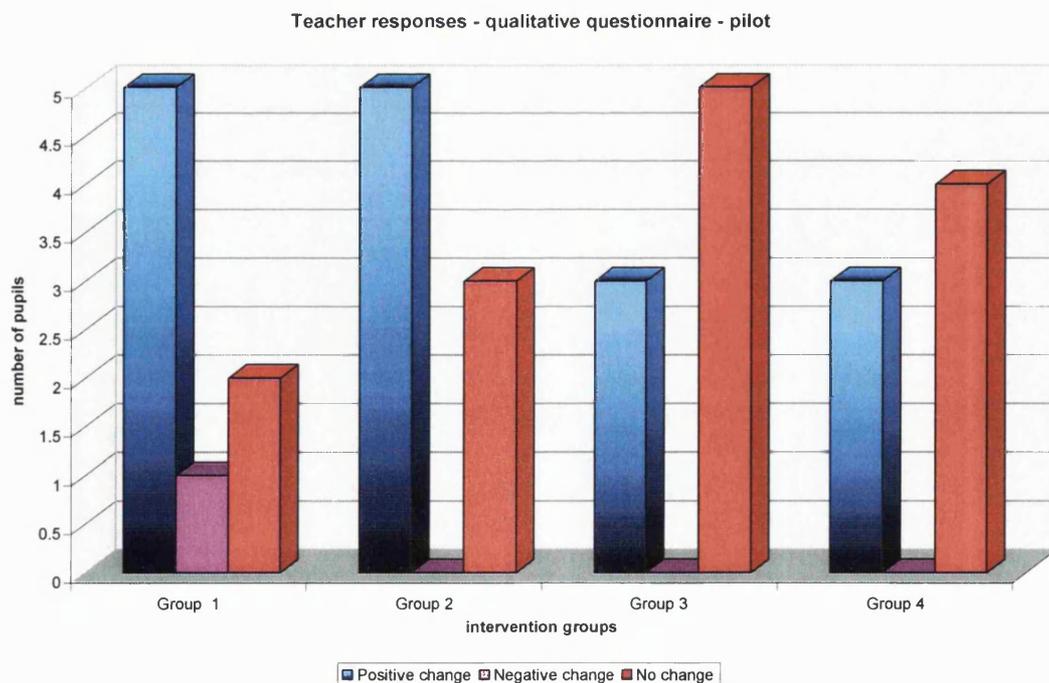
One pupil wrote: 'The project helped me gain confidence in myself and for my future. I can't wait to go to College in September'. Another pupil wrote: 'I am now able to control my stress and anger better'.

Anecdotal evidence from longer term feedback a year after the pilot study finished was positive. Several of the CBT group reported that they were successfully using the strategies learned during the project for their exams, particularly for their Maths exams.

2.8.2.2 Teachers' evaluation form

The responses of the Form Tutors are illustrated in Figure 7

Figure 7 - Teacher responses on the qualitative questionnaires



The graph above shows that most positive change was perceived by the teachers to have been experienced in the mixed and in the relaxation groups and least change in the CBT and control groups.

2.9 Discussion of the pilot study findings

It appeared from the attendance rate that the activities of the experimental groups, particularly the active relaxation sessions, had engaged most of the youngsters. However, what the participants said they had enjoyed most, was not always the most effective. They appreciated work done in small groups as well as the positive interest and attention from an adult, which may have created a Hawthorne effect. Warmth and empathy has been demonstrated in previous research to be more important in effective psychotherapy than the type of treatment. Perhaps there are some lessons to be learned by schools. However, the data suggest that some of the interventions were effective in bringing about change. There were subject specific differences. The CBT group improved most in English and the mixed group improved most in Science. The results of the pilot provide some pointers that cognitive behavioural interventions, either on their own or combined with other strategies such as relaxation, are effective in enhancing self-confidence as well as examination performance and in reducing examination anxiety, but conclusions drawn from the study have to be tentative. There were some pointers that the CBT group benefited most from the intervention, which was in line with hypothesis 2 of the study. However, caution was indicated, since the sample was small. The main study investigated this further with a larger sample. The results of this particular pilot were inconclusive as to the

effectiveness of mixed versus single interventions, but that may have been due to the experimental design. These issues will be discussed in more depth in the conclusions to the main study. Mixed methods may be called for, if anxiety levels are at clinical level of physiological arousal, and physiological methods

such as relaxation and breathing may be needed in such situations, as for instance in a major panic attack. This approach may help to calm an individual down sufficiently for cognitive strategies to kick in.

The results of the pilot study are open to a range of alternative explanations such as sampling error, effects of measurement, experimenter effect, rater bias, participant attrition (in the control group) as well as the effects of the experimental design, i.e. the difficulties of translating relaxation and CBT interventions into two half sessions each of the mixed group.

A comparison of the pupils' self ratings of anxiety and their responses in the qualitative questionnaires with the teachers' ratings shows some differences in perceptions. The teachers perceived most positive change in the relaxation and the mixed group, describing them as calmer and noted least change in the CBT and the control group. This goes counter to the CBT group's own perceptions. They had reported the relatively greatest increase in confidence, which was perceived as more assertive behaviour by their teachers.

2.9.1 Limitations of the pilot study

A limitation was imposed on the selection of the sample, which was chosen from a restricted and readily available population and not completely random.

One of the main constraints of the pilot study was the small sample size. However, this made it easier to develop a programme for the sessions.

Issues such as the complexity of variables affecting research outcomes in a school setting and other mediating variables such as maturation, differential

quality of teaching, as well as practical constraints such as timetabling and the unpredictable nature of events in a busy secondary school, will be discussed in more depth in the evaluation of the main study.

As to the interventions, this pilot could be accused of lack of objectivity and experimenter bias, since the experimenter was delivering the interventions. The experimenter could be accused of, subconsciously, favouring the preferred methods, which were confirming hypotheses. The experimenter was aware of this. Since one of the practical aims of the pilot was to develop and to adapt interventions to new settings, there were methodological constraints. It was premature to hand these methods on to teachers. This was done in the main study.

Other practical constraints of the pilot study were tensions between the school's timetable demands and the project delivery. The participants had to come out of lessons and this made the organisation of the project more difficult. Some of the teachers commented that this fact could disadvantage pupils, since they missed some preparation for examinations. It was therefore; even more encouraging that the pupils in the experimental groups had improved their exam grades in spite of missing some lessons. However, the clash between lessons and intervention sessions was remedied in the main study by the use of standard PSHE slots.

2.9.2 Ethical considerations

The pupils in the control 'study skills' group were offered a choice of the interventions by the experimenter after the experimental phase had finished.

However, none of the participants took up this offer. This fact raises important ethical considerations, since the control group did not improve examination performance to the same extent. On the other hand, without the interventions, the members of the experimental group would not have had the benefit of these interventions either. This point had been discussed in depth with the Headmaster and the senior staff of the School. They had been made aware of the conflicting demands of research in a real life setting. On the one hand the very nature of research is that the outcomes of this research are unknown. On the other hand the participating school expects a positive outcome for the pupil participants. The researcher gave an undertaking to the Head that the same principles of professional ethics and conduct would apply to the research as in her daily work as an educational psychologist. The School felt very much that 'something would be done' to help them manage anxiety of pupils (and their own) better and put their trust in the researcher.

2.9.3 Objectives achieved by the pilot study

The pilot served its purpose in a variety of ways:

It provided the opportunity for a 'dummy run' for the main study, to develop self-management strategies of exam anxiety, initially on a smaller scale and with a smaller group of highly motivated volunteers.

It provided the opportunity to try out the interventions initially in the more private and sheltered setting of the Youth Club attached to the school rather than in large classrooms.

It provided the opportunity to trial relatively new evaluation instruments such as the English version of the Friedben Test Anxiety Scale (FTA), with smaller groups.

In addition the pilot study highlighted the need for a number of further improvements to be made in the main study.

The pilot study provided some pointers as to the differential effectiveness of the intervention methods. However these are to be viewed with caution.

2.9.4 Issues emerging for consideration in the main study

Lessons learned from the pilot study triggered some productive debates among the participating teachers and the experimenter about improvements to be made to the main study. The successful aspects of the pilot study increased the confidence of the experimental team that the main study was worth carrying out, since it would apply approaches to new areas. The mistakes made in the pilot study helped to anticipate pitfalls in the main study and to draw attention to issues needing particular thought, such as the issues listed below.

2.9.4.1 Selection of participants

Age

Some teachers felt that the Year 10 age group would benefit more from the interventions, since the approach of the main study would be more preventative and give the participants more time to practice the learned strategies before the GCSE exams. Conversely, Year 10 pupils were considered, by their teachers, to be less motivated and less anxious about the exams, since the exams were further away.

Group size

The qualitative feedback of the participants of the pilot study confirmed that the optimal number of participants for cognitive behavioural type sessions is relatively small, i.e. 8 – 10 participants for older pupils. The participants said that particularly the small group nature had been attractive for them. There are pointers that there is a large component of social anxiety in examination anxiety. One of the features of social anxiety is the fear of drawing attention to oneself, particularly in a large group. As one of the pupils put it: 'My greatest worry is to make an entrance at a party in new high heeled shoes, everybody looking at me and me falling flat on my face'. It is worth mentioning that this participant was very nimble footed and that her anxiety was a distorted and unrealistic thought, which was completely unfounded.

The question for the main study was whether the interventions would work in large groups, with anxious adolescents? Would the participants be willing to share feelings in larger groups, particularly in lessons, which were compulsory?

The participants of the pilot study said they had appreciated the open-ended structure and the personal space of the sessions. They preferred active learning. Some of the pupils dropped out of the control group (study skills) because they considered it to be less active.

The challenge of the main study was to maintain and to generalise the advantages and intimacy of small group work and strategies from a more therapeutic setting to a universal, school-based setting as well as engaging whole classes of pupils who were no longer volunteers, some of whom were indifferent or even disaffected and not motivated to participate in the study.

2.9.5 Positive spin-offs of the pilot study

The ultimate aim of this research was to develop practical, research based strategies for the self-management of anxiety, which would benefit the whole school and would inform pastoral care and policy. The pilot study provided some initial pointers that this was a realistic goal. Vulnerable pupils among the participants were identified by the school (by the Head of Pastoral Care) earlier because of the attention of the project and proactive measures could be taken by the school. This outcome was achieved while respecting confidentiality.

Chapter 3 – Method –main study (September 2000 – April 2001)

3.1 Participants

3.2 Procedures

3.3 Time-line

3.4 Programme for the sessions

3.5 Measures

3.6 A resume of the work done for the main study

Chapter 3 – Method – main study (September 2000 – April 2001)

The main study linked the findings and recommendations from the literature search and combined them with the lessons learned from the pilot study. The main study developed the interventions with a selective, small sample of volunteer pupils of the pilot to a universal study with four Year 11 Forms, with interventions delivered jointly by teachers and the educational psychologist/experimenter as part of ordinary PSHE lessons.

3.1 Participants

3.1.1 Participants – the local context

The local LEA operates a selective system for entry into secondary education by administering an 11+ selection test to all pupils. The pupils with scores in approximately the top 20% of the population on this test are selected for the local grammar schools. The rest of the secondary school population is allocated to upper schools.

3.1.2 Participating school

The school participating in the main study was selected for the same reasons as for the pilot study. The school had been recommended for the pilot study by its link educational psychologist because it offered most flexibility and commitment to the project and because its current need matched the aims of the project. The staff of the school were keen to continue participation in the main study.

The participating school was a local upper school. For this reason the pupil target population was somewhat skewed, since the pupils in the top 20% of the selection test range had been placed elsewhere. The pupils in the study had a relatively higher proportion of special educational needs such as specific learning difficulties, attention deficit disorder and behaviour difficulties.

During the pilot and main study some of the pupils commented that they were particularly anxious about exams because they had already experienced failure in the secondary selection test. Several pupils said that they had felt rejected. The effect of this rejection on some of them had been demotivating; some had felt depressed about failure, while others said they were eager to prove to everyone that they were good enough. For these pupils exams were ways of restoring their self-esteem and their high motivation increased the pressure to do well in exams and anxiety about them.

3.1.3 Participating pupils

The target group of participants for the main study were pupils in four Forms, randomly selected from the whole of Year 11 of the school. They had been selected because their Form Tutors or PSHE teachers had volunteered to take part in the interventions of the main study. The Forms were allocated to the teachers at random (i.e.the participating teachers drew the Form they would work with, out of a hat).

A total of 105 pupils of four Year 11 forms participated in the main study. Year 11 was selected for the same reasons as the pilot, ie.due to GCSE examinations this age group was felt to be under greater pressure.

The composition of the four groups as to gender was not even.

Gender was roughly evenly distributed in groups 1 (mixed) and 4 (CBT). There were more girls than boys in group 2 (relaxation) and group 3 (attention control).

Since pupils were selected by their membership of the randomly chosen forms and were not volunteers, no initial screening for participants was necessary.

3.1.4 Participating teachers

The three teachers who volunteered to take part in the interventions of the main study were the Head of Pastoral Care/ Deputy Head of the school who also taught PSHE and two experienced Form Tutors who taught PSHE and RE.

Interventions were delivered to the experimental groups in paired presentation by one of the volunteer teachers and the educational psychologist. The control group continued standard PSHE lessons with the Head of Pastoral Care.

3.1.5 Consent

The Headteacher of the school sought informed consent from the school governors and from the participants' parents. Consent was also sought from pupils aged above the age of sixteen. (Please see Appendix 2 for proformas of the consent forms). The parents of the participating pupils were happy about the project. Only one parent took up the invitation to contact the researcher to express concern about the study. This was a parent of a pupil in the control group. The parent expressed concern about the fact that her son had achieved

low results in the Mock GCSE exams. She felt this had been as a consequence of a critical incident outside the school, which this pupil had witnessed. This parent was reassured by a discussion over the phone with the experimenter that the control group would be offered to try out some of the strategies after the experimental phase. She was able to reassure her son who subsequently did well in the GCSE exams.

The researcher also sought and obtained permission from the UCL Ethical Committee (Please see Appendix 1).

3.1.6 Ethical considerations

The control group was given the choice to sample strategies with their PSHE teacher after the experimental sessions and exams were finished and they took this up.

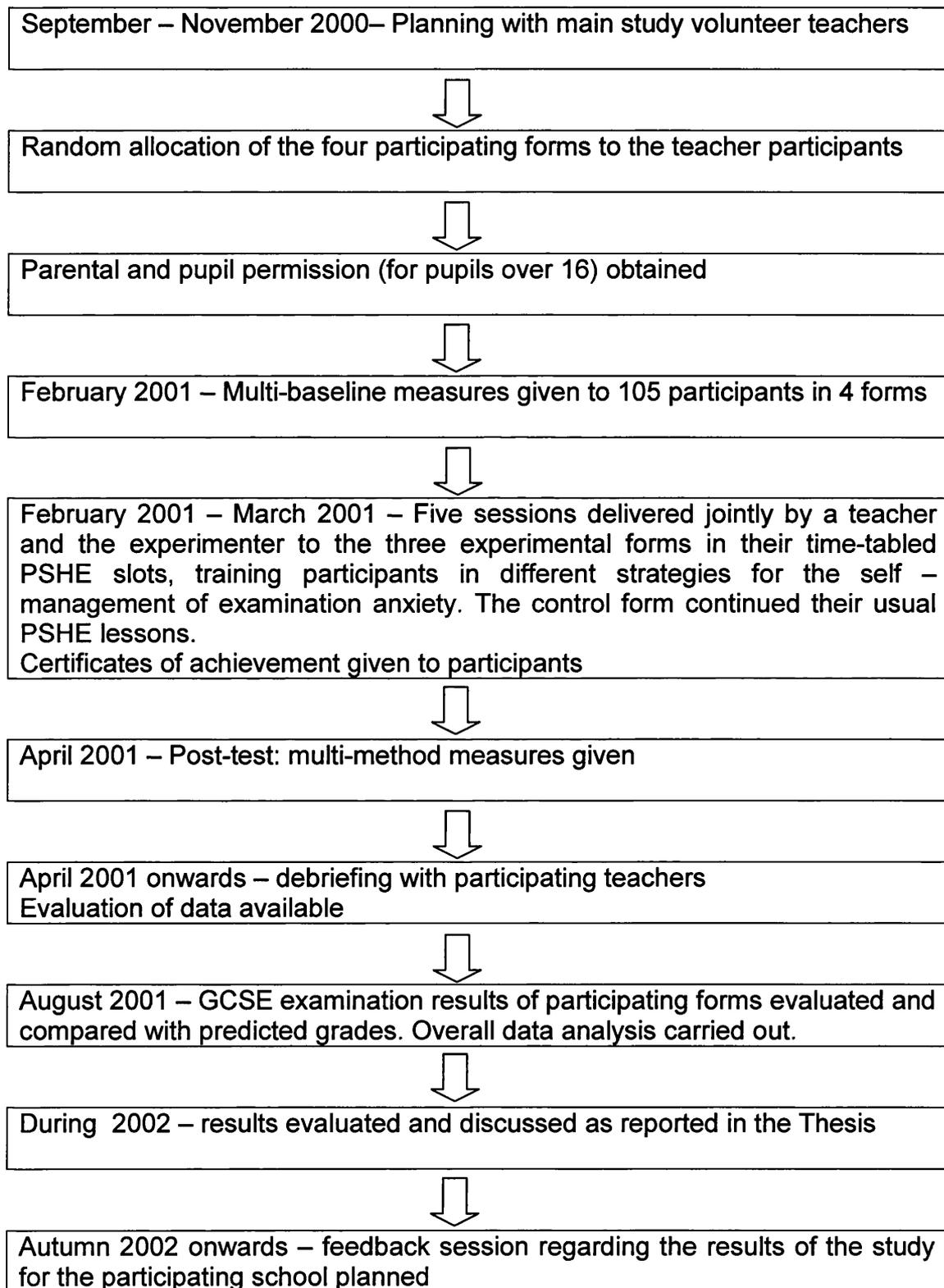
Potentially vulnerable pupils from the four selected forms, but particularly from the 'sleeper' control group, were monitored and discussed by their teachers to anticipate any problems, if necessary, and for the school to refer these pupils along appropriate routes for specialist help, if needed.

3.1.7 Confidentiality

The participants' responses were number coded. Their individual responses were confidential, but aggregated data were shared to inform future school policy and practice. The findings of this study will be presented to the school in a staff development session.

3.2 Procedures

3.2.1 Diagram of the research process - main study



3.3 Time-line

3.3.1 Joint planning and development sessions by the participating teachers and the researcher

From September 2000 to the beginning of the delivery phase of the experimental sessions in February 2001, joint planning sessions were held. The small group interventions of the pilot phase were developed further and translated to be delivered in larger classes, as part of the PSHE curriculum. Feedback from the pilot participants was taken into account, including their wish for active learning. Once the delivery of the sessions had started, additional debriefing and further planning sessions were held weekly between the sessions, by the research team. On the day the sessions were timetabled, the researcher was part of the morning school staff briefings in the staffroom. This created additional channels for informal exchange of information with school staff.

Planning included writing and sharing scripts, adapting materials and allocating shared roles for the sessions, as well as the practical aspects of the session delivery. Feedback analysed how the sessions had gone.

3.3.2 Delivery of the sessions

3.3.2.1 Methods of presentation of the sessions

The researcher was introduced to the participants as an educational psychologist carrying out a study to explore strategies for the self-management of examination anxiety with the help of pupils and teachers of the school.

The participating forms were told that the reason for their selection was the interest of their teachers and not the fact that they had been perceived as particularly anxious or in particular need of help.

Since the groups were considerably larger than for the pilot study (25 plus pupils rather than 8), methods of presentation were differentiated and materials developed to include more written presentation such as worksheets and hand-outs. It was the role of the educational psychologist to start the session off with a short input. The teachers participated in the discussions which had to be organised differently because of group size and because of the short attention span of some of the pupils with special educational needs. The class was broken down into smaller groups. It was also the teachers' role to keep discipline, if needed. Most of the time the pupils were engaged and well behaved. The participants were given worksheets and homework to do. (Examples are included in the Appendix).

Some of the work materials were adapted from existing packages and books, some were newly developed. An acknowledgement of the source is listed with the materials, where appropriate.

Ways of presenting information and organising activities was by quiz, role play, blackboard, worksheets and pictures.

The researcher and the volunteer teachers jointly delivered a total of 15 experimental sessions (five forty-five minute sessions per Form) in various locations of the school. The sessions were delivered in the slots time-tabled for a PSHE block running from February to March 2001. The sessions were held in normal classrooms except for the relaxation sessions. These were delivered in

the drama room or the gym. The sessions were run as fifth module of the PSHE curriculum with the title 'Stressbusters - self-management of examination anxiety'. The other modules covered in the PSHE lessons were: careers, drugs, IT and RE. At the completion of the five sessions the participants were presented with a Certificate for their Record of Achievement. As for the pilot study, the sessions were scripted in order to allow transparency, replicability and uniformity of delivery between the participating teachers. Homework was again given between the sessions.

3.4 Programme for the sessions

The school had called the pilot project 'Stressbusters'. This name was retained for the main study.

Overall objectives of the experimental sessions

To raise participants' awareness of the positive and energising aspects of anxiety;

To equip the participants with a variety of strategies to manage their feelings, including problematic examination anxiety, better;

To share experiences in a group situation;

To share the successful strategies with the whole school;

Outcomes

To be able to harness the positive and energising aspects of anxiety in a variety of challenging situations, in particular in an examination situation;

To learn new skills and ways of self-managing stress, in particular problematic anxiety;

To create a climate of openness in the school about expressing feelings.

The three experimental groups received an introductory session delivered jointly by the experimenter and a teacher.

The introductory and assessment session covered the following topics:

Introductory overview

The objectives of the introduction session were the same for the three experimental groups.

Objectives

To set the scene and to develop trust and a setting where the participants feel safe;

To establish ground rules;

To set short and long term goals (how to realise a dream);

To have fun.

Please see Appendix 7 for examples of scripts and handouts for all the sessions (all three experimental groups).

Programme of the individual groups

Experimental group 2 – relaxation only

Objectives

To learn a variety of relaxation techniques to deal with anxiety in a positive way;

To learn to become aware of body and breathing;

To learn to recognise tension and to be able to relax in as many situations as possible.

Programme overview

The activities in the main study were similar to the activities of the pilot study. These activities had been refined and developed further.

Experimental group 4 – cognitive behavioural approaches

Objectives

To learn about cognitive behavioural strategies;

To understand how the mind can influence moods and the stress a person feels;

To learn to recognise faulty, unhelpful, negative thoughts and to find evidence for more balanced, useful and positive thoughts.

To learn to reach goals by more than one route.

CBT group – Programme overview

Session 1 – introduction and assessment, as for the other 2 experimental groups

Session 2 – ground rules reminder, recap introduction session

Input (physiology of stress and anxiety)

What is CBT? (script)

Positive self-talk – self is best resource. (handout).

Activities: thought record – faulty thoughts

Homework sheet: complete thought record

Session 3 – Consolidation of things learned in previous sessions.

How did they get on with thought record?

Relationships and support from others. Activities: Role play, scenarios, connected to self-esteem and confidence.

Session 4 – Further consolidation of learning about CBT strategies. recap.

Look after yourself and other people. How to be assertive.

Relationships and friendships. Share concerns.

Goal setting. Taking control of learning and performance.

Session 5 – To recap things learned in the first four sessions – how to apply

them to managing exams and challenges. Overview.

Experimental group 1 – mixed group

Objectives

To master a variety of ways of dealing with anxiety in a positive way. These strategies were a mixture between physical relaxation techniques and cognitive behavioural approaches.

To acquire a variety of 'tools of the mind' to control and prevent anxiety according to the situation (crisis or prevention).

Programme overview (mixed group)

The programme of the mixed group consisted of an introduction session as for the other two groups, two relaxation sessions and two sessions on cognitive behavioural strategies. Like the other groups this group was given homework.

The activities of the relaxation sessions were extracts from the programme of the relaxation only group and activities for the CBT sessions were extracts from the CBT only group. The exposure length of the groups was the same.

The relaxation exercises selected were the same as for the relaxation group, but of less frequency. For the CBT input the activities contained less repetition and consolidation.

3.5 Measures

Pre and post measures were administered to the participants on a triangulation principle, covering cognitive (self-report), behavioural and performance aspects.

The measuring instruments were the same as for the pilot study with some minor changes. These changes took into account the feedback from the pilot study.

3.5.1 Quantitative evaluation – multi-method assessment

Pre-test measures were administered as base-line in February 2001 and at the end of main phase in April 2001.

3.5.1.1 Self-report – scale: Friedben Test Anxiety Scale (FTA)

This examination anxiety scale is described in the pilot study. It was administered again in the main phase, because it appeared to be a useful instrument to assess examination anxiety.

3.5.1.2 Systematic behavioural observations – Conners' Rating Scales – Revised

In the main study the long form rather than the short form of this scale was completed by the Form Tutors. One of the conclusions of the pilot study had been that the short form was not sufficiently sensitive to assess smaller differences in behaviour in a universal (subclinical) sample of participants. The long form contains 59 items and covers 13 subscales, including an 'anxious-shy' scale. Thus the long form yields more specific information about the participants' anxiety level.

The long form of the Conners' Rating Scales Revised was completed by the Form Tutors of the participating Forms in February 2001 and again in April 2001.

3.5.1.3 Performance measures – examination results

Estimated and achieved GCSE grades of the participants, converted to points, were compared and the significance of pre-post differences was assessed.

3.5.2 Qualitative evaluation

At the end of main phase the participants completed the anonymous evaluation form developed for the pilot study. (Please see Appendix 6). The evaluative questionnaire for the teachers, which had been administered during the pilot phase, was abandoned, since it was considered to make too many demands on busy teachers. It was hoped that the Conners' Rating Scales would tap similar information on teacher judgements.

3.5.3 Attendance

Attendance was established during standard registration, and the participants attended the sessions as for normal PHSE lessons. There were absences due to illness, but attendance was relatively good. Two pupils were excluded while the study was in progress. The sessions were presented to the pupils as school lessons, which they had to attend.

3.6 A resume of the work done for the main study

The planning and delivery phase of the main study spanned the Autumn term of 2000, and most of the Spring term 2001. The planning covered organisational aspects such as the allocation of experimental groups to teacher/experimenters, obtaining parent and pupil permission as well as practical details such as venues and resources. The regular sessions by the three teachers/experimenters and the educational psychologist/researcher covered planning and training aspects. From February 2001 to March 2001 five intervention sessions were delivered jointly by a teacher and the educational psychologist to each of the three experimental forms in their time-tabled PHSE slots, training participants in different strategies for the self-management of examination anxiety. The control form continued their usual PSHE lessons.

The debriefing sessions of the experimental team held in between the intervention sessions were dynamic, incorporating feedback from the participants after each session to improve further sessions.

The data collection phase started in February 2001, with multi-method baseline measures being given to the participants and to the Form Tutors. This phase continued in April 2001, with post-measures being administered. The data collection phase was completed in August 2001, with the publication of the GCSE results. The results, which are described in the next chapter, were evaluated from September 2001 onward.

Chapter 4 – Results

4.1 Quantitative data analysis

4.2 Qualitative data analysis

Chapter 4 - Results

Results are reported in two sections. The first section analyses the results of quantitative measures, comparing the four Forms on the measures described above. The second section analyses qualitative feedback from the participants of two experimental groups. (one group did not complete the qualitative questionnaires due to work pressures on the Form Tutor).

4.1 Results – quantitative data analysis

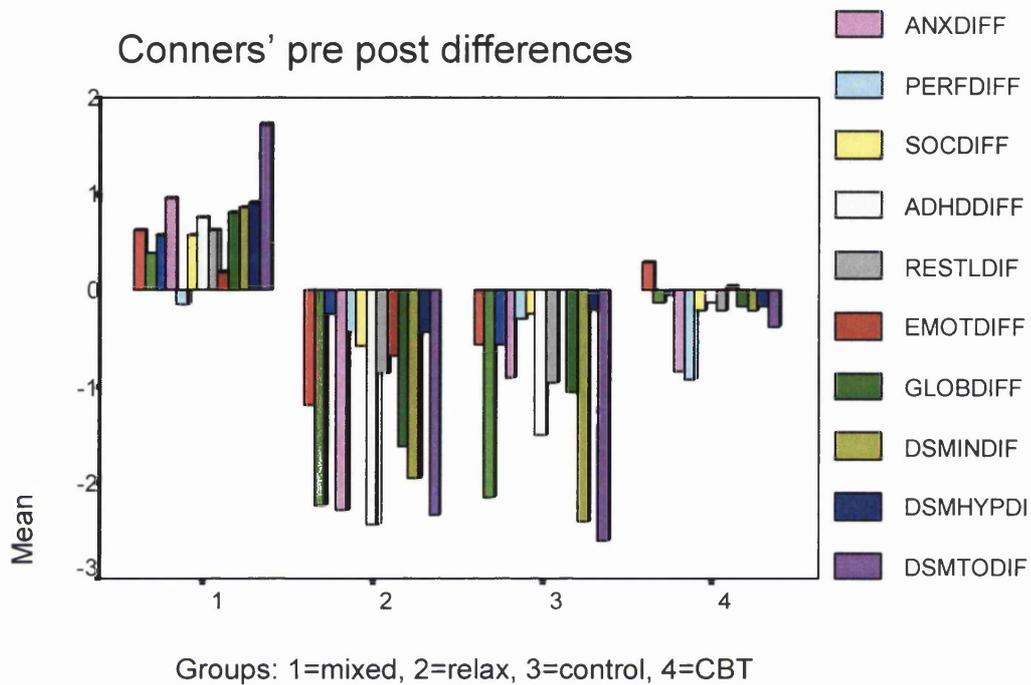
4.1.1 Rationale for the choice of statistical tests for the analysis of the main study data

For the data yielded by the Friedman Test Anxiety Scale (FTA) and the differences in exam grades non-parametric tests were used to allow for the categorical nature of the data. Another reason for this was that the FTA has yet to be standardised in English. However, for the analysis of the data yielded by the Conners' Teacher Rating Scales in the main study, parametric tests were used. The Conners' Teacher Rating Scales have been extensively standardised and are based on a normative sample of 8000+. An inspection of the Conners' main study data by histogram showed that the data were normally distributed. A Bonferroni correction was made to the levels of statistical significance in the interests of caution, in order to adjust for the categorical nature of the data yielded by the Conners' Scales.

4.1.2 Conners' Teacher Rating Scales – Revised (long form)

Figure 8 illustrates the mean differences per group in pre-post teacher ratings on some of the factors of the Conners' Teacher Rating Scales

Figure 8 - Pre-post differences between groups on the Conners' Teacher Rating Scales



A one-way between groups analysis of variance was conducted to explore the impact of the interventions as measured on pre and post Conners' Teacher ratings. There was a statistically significant difference between the four groups on most of the factors: Oppositional [$F(3) = 3.912, p = 0.011$], Cognitive Problems/Inattention [$F(3) = 7.711, p < 0.0005$], Anxiety/Shy [$F(3) = 9.403, p < 0.0005$], Perfectionism [$F(3) = 2.794, p = 0.045$], ADHD [$F(3) = 4.231, p = 0.008$], Conners' Global Index: Restless/Impulsive [$F(3) = 4.628, p = 0.005$], Conners' Global Index Total [$F(3) = 4.269, p = 0.007$] and DSMIV – Total [$F(3) = 5.207, p = 0.002$].

A planned comparison of pre-post differences between groups on the Anxiety/Shy factor of Conners' teacher ratings yielded statistically significant differences between the control group (group 3) and groups 1 (mixed) and 2

(relaxation). Experimental group 2 was rated as most reduced in anxiety by the Form Tutor.

Figure 9 - Pre-post teacher ratings on the Anxiety/Shy factor

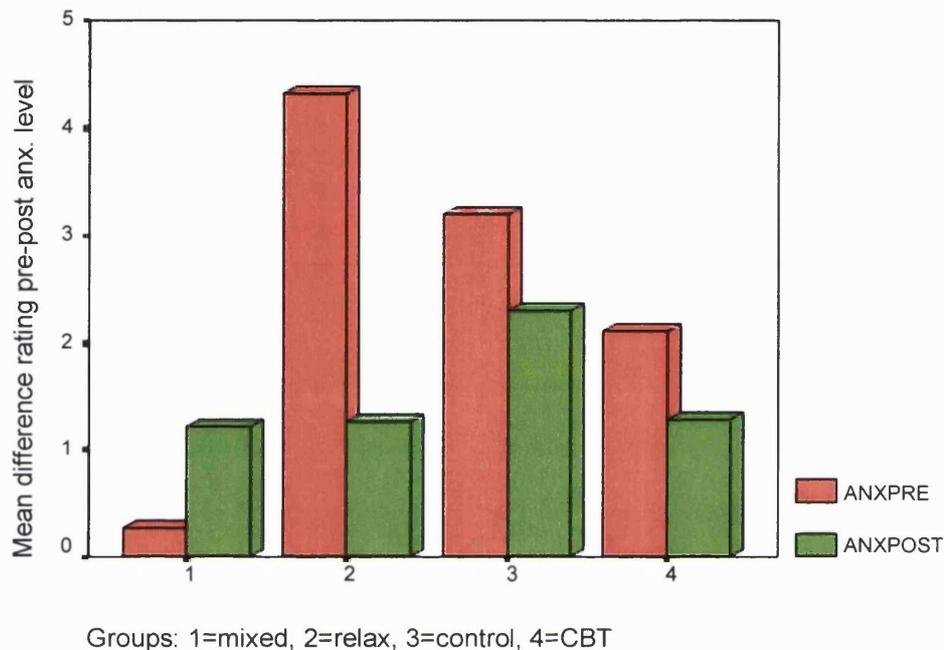


Figure 9 above illustrates the mean pre and post ratings per group on the single Anxiety/Shy factor of the Conners' Teacher Rating Scales. These data suggest an interaction between pre-anxiety level and teacher ratings.

Participants of group 1 (mixed) were blind rated by their Form Tutor who was not a volunteer teacher participant. This teacher rated the group as of low anxiety before the interventions and as slightly increased in anxiety level post intervention. A second Form Tutor who was Form Tutor for both Groups 2 (relaxation) and 3 (attention control) and who was also a volunteer participant in the interventions, rated Groups 2 and 3 on the Conners' Teacher Rating Scales. This second Form Tutor rated Group 2 as initially highly anxious and as

significantly less anxious after the intervention. The same Form Tutor rated Group 3 (control) as fairly anxious and as slightly less anxious after the interventions. A third Form Tutor blind rated Group 4 (CBT) as moderately anxious before the interventions and as marginally less so in the post-test.

4.1.3 Friedben Test Anxiety Scale (FTA)

An evaluation of the difference between the participants' self-reported pre-intervention anxiety scores on the FTA (T-test against 1= lowest score on the FTA) indicated that the participants had perceived themselves as significantly anxious before the interventions ($t=30.183; df89; sig.p < .0005$).

Table 6 – Friedman FTA Scale – pre-post anxiety scores by group

| GROUP | | TOTAL PRE | TOTAL POST |
|-------|----------------|-----------|------------|
| 1 | Mean | 57.63 | 58.85 |
| | N | 22 | 20 |
| | Std. Deviation | 16.87 | 22.32 |
| 2 | Mean | 73.13 | 66.16 |
| | N | 23 | 18 |
| | Std. Deviation | 20.04 | 20.77 |
| 3 | Mean | 66.10 | 62.86 |
| | N | 20 | 15 |
| | Std. Deviation | 20.58 | 16.82 |
| 4 | Mean | 65.64 | 57.72 |
| | N | 18 | 18 |
| | Std. Deviation | 22.74 | 20.31 |

Table 6 above shows the pre-post mean anxiety scores on the FTA by group.

The same data are illustrated in graph form in Figure 10 below.

Figure 10 - Mean pre-post anxiety scores on the FTA by group

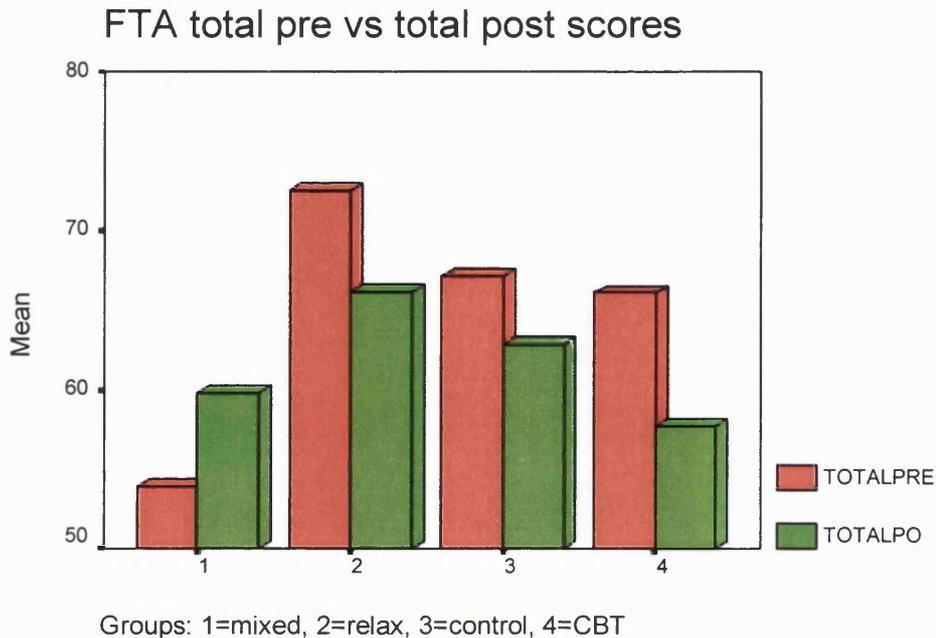


Figure 10 above shows the total pre- and post mean anxiety scores on the FTA by group in graph form. Individual pre-post analysis was not possible, since group 2 (relaxation) had completed the post-test anonymously.

An analysis by Kruskal Wallis did not yield any statistically significant difference between the four groups in terms of pre-post differences. Figure 10 also illustrates that there is an interaction between pre-test anxiety scores and intervention. This fits in with the Conners' Rating Scales results. Group 1 (mixed) had reported a relatively low pre-test anxiety level, but reported an increase in post-test anxiety level. Group 2 (relaxation) and Group 3 (control) reported a relatively high level of pre-test anxiety and a reduction in post-test anxiety. Group 4 (CBT) reported a relatively lower pre-test level of anxiety and the relatively greatest reduction in post-test anxiety level, although it was not statistically significant.

Figure 11 - Total pre anxiety scores compared to the difference between pre-post scores per group on the Friedman Test Anxiety Scale (FTA)

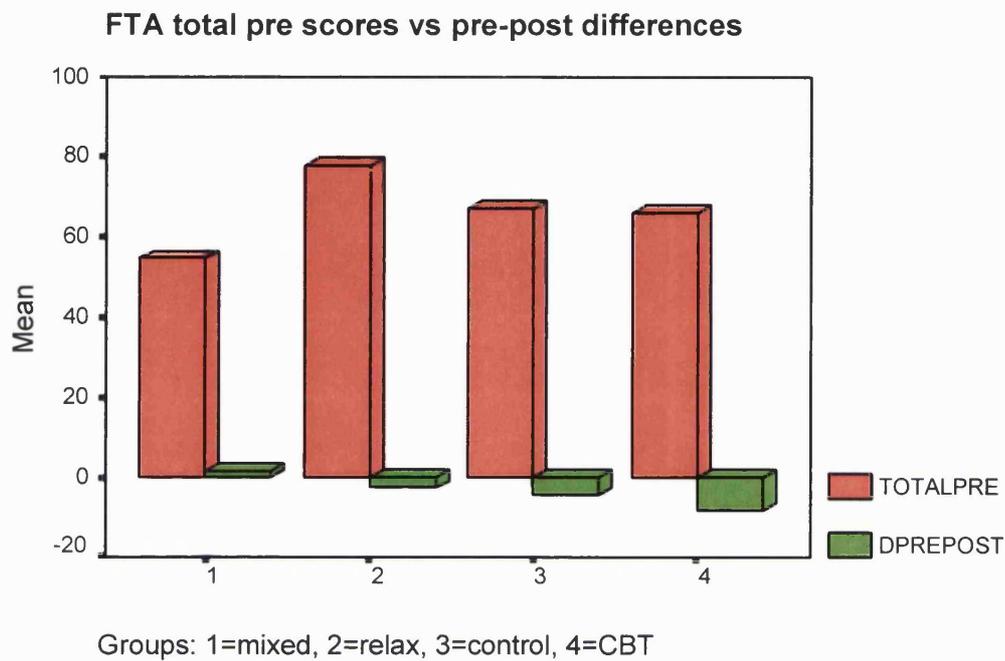


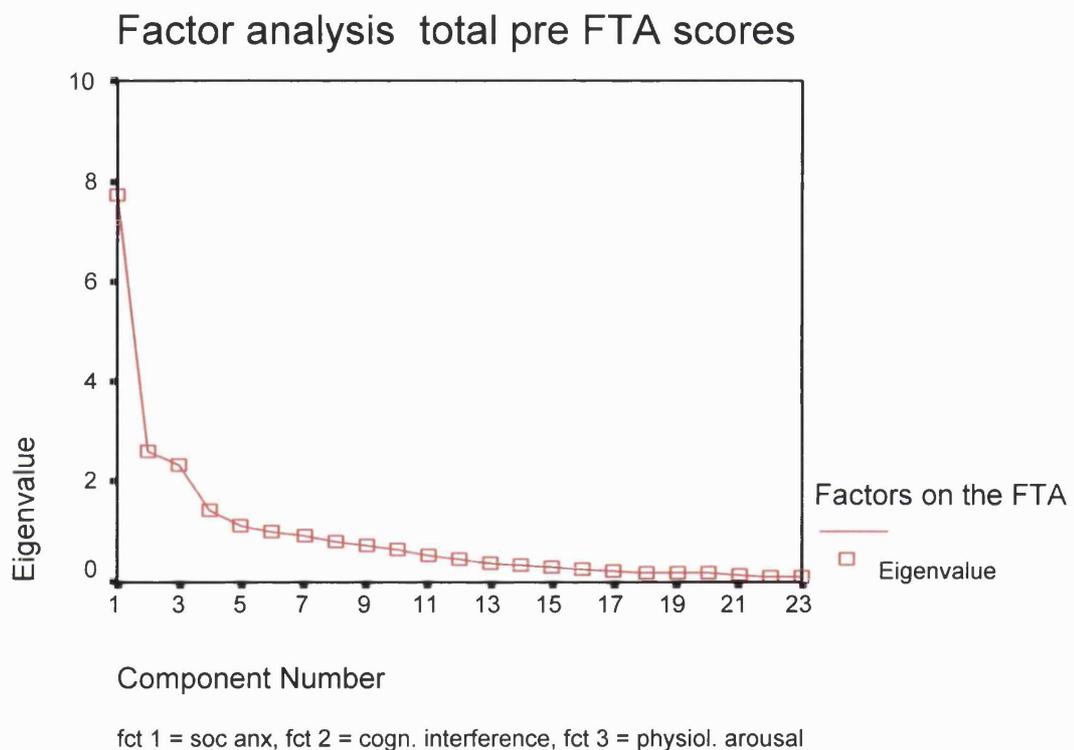
Figure 11 compares total self-reported pre-anxiety level on the FTA to pre-post-differences. An inspection shows that Group 4 (CBT Group) perceived themselves as marginally less anxious than the other groups at the end of the sessions.

4.1.3.1 Factor analysis of the FTA (Friedben Test Anxiety Scale) pre-test scores

A factor analysis (principal component analysis – rotation method: Varimax with Kaiser Normalisation) of the pre-test anxiety scores of all the participants on the FTA yielded three main factors. These three factors accounted for 45% of the total variance. This result validates the Friedben Test Anxiety Scale factors and the definition of test anxiety in adolescents suggested by Friedman and

Bendas-Jacob (1997), to some extent. Friedman and Bendas-Jacob defined test anxiety in adolescents as 'worry of suffering a reduction in one's self-image and self-efficacy, particularly its reflection in the eyes of significant others, concurrently with obstruction of cognitive processes and outstanding physical and mental discomfort' This definition is similar to the model of examination anxiety proposed in this study.

Figure 12 – Factor Analysis for total pre FTA scores



4.1.4 Analysis of examination performance

Exam grades were converted into a point system (A*=8;A=7;B=6; C=5; D=4; E=3; F=2; G=1; U=0). Differences between estimated and achieved GCSE Grades for the 2001 GCSE examinations were computed and evaluated. Grades for French, Spanish and Italian were aggregated into a 'Language' group. Core subject grades only were selected because there were not sufficient numbers of pupils taking other subjects such as Art, Music or R.E.

An analysis of pre-post differences shows that there were differences in exam performance between the groups. There was a statistically significant difference between the groups in the exam grades for Maths (Kruskal-Wallis: Chi-Square= 22.147, $p < 0.0005$). Three groups achieved worse than predicted results in their GCSE Maths exams, except for Group 1 (mixed group), which did marginally better than predicted. There was no statistically significant difference in exam performance between the groups for English, Technology and Science. Differences in performance were verging on statistical significance. There was a consistent trend for the mixed group to do best and for the CBT group to do second best. All experimental groups consistently achieved better results than the control group in all subjects, except for English Literature, where the control group did best and the mixed group did worst.

Figures 13 - 17 illustrate the mean differences between predicted and achieved examination grades converted to points, for the different subjects included in the evaluation. A comparison of the five graphs shows that there is a pattern emerging for the subjects English, Maths and Science, with the mixed group doing consistently best, having improved exam grades most compared to estimated grades, the CBT group doing second best, and the control group doing relatively worst. There was no such trend for English Literature and languages. It is also interesting to note that all groups achieved worse than predicted grades in Maths, with the exception of group 1 (mixed), who did slightly better than estimated. Possible explanations for this will be explored in the discussion chapter of this thesis

Figure 13 - Differences between predicted and achieved GCSE grades –

English

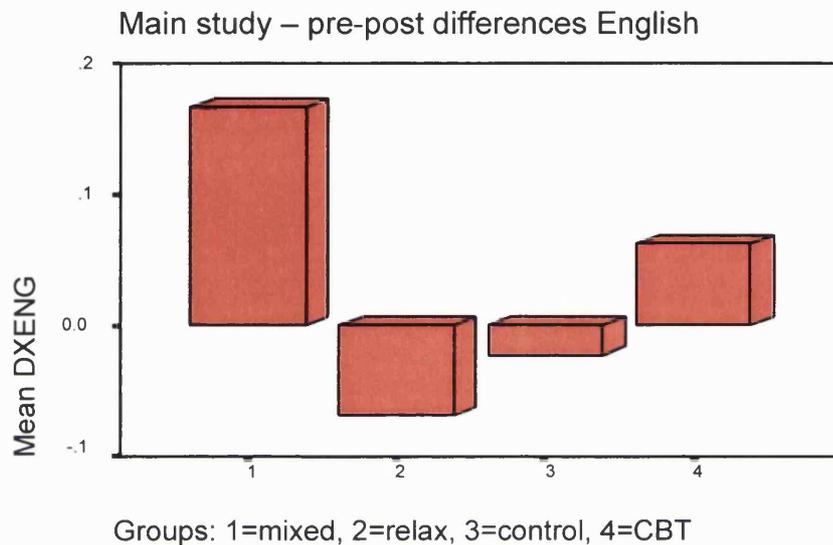


Figure 14 Differences between predicted and achieved GCSE grades –

English Literature

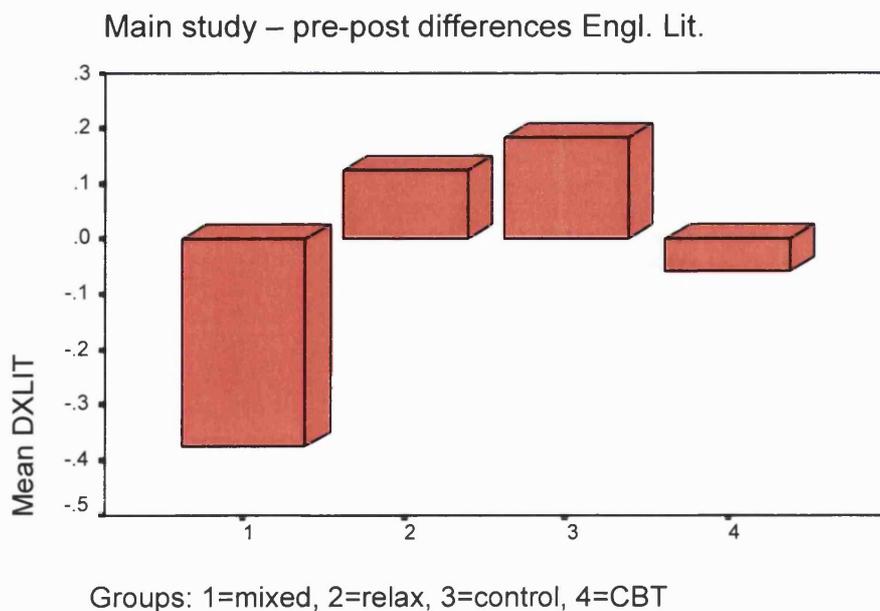


Figure 15 - Differences between predicted and achieved GCSE grades –

Maths

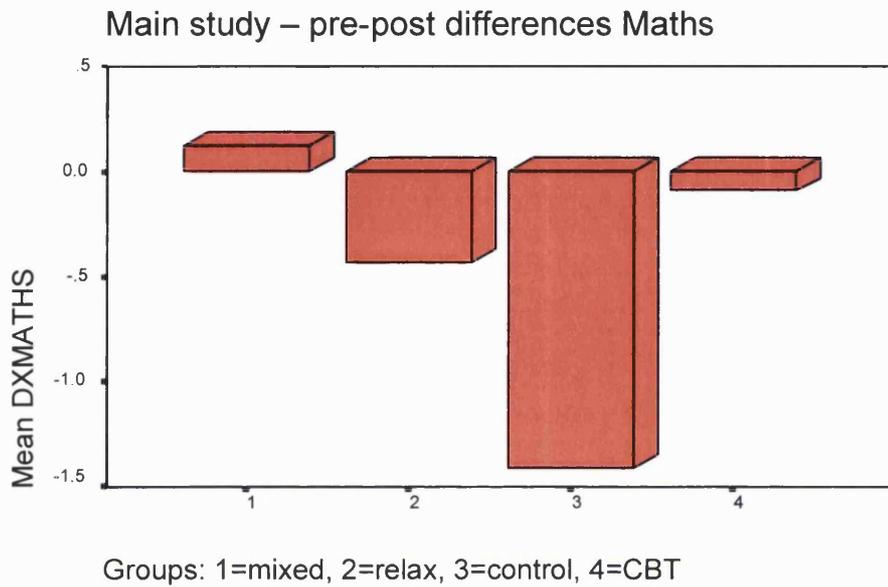


Figure 16 - Differences between predicted and achieved GCSE grades –

Science

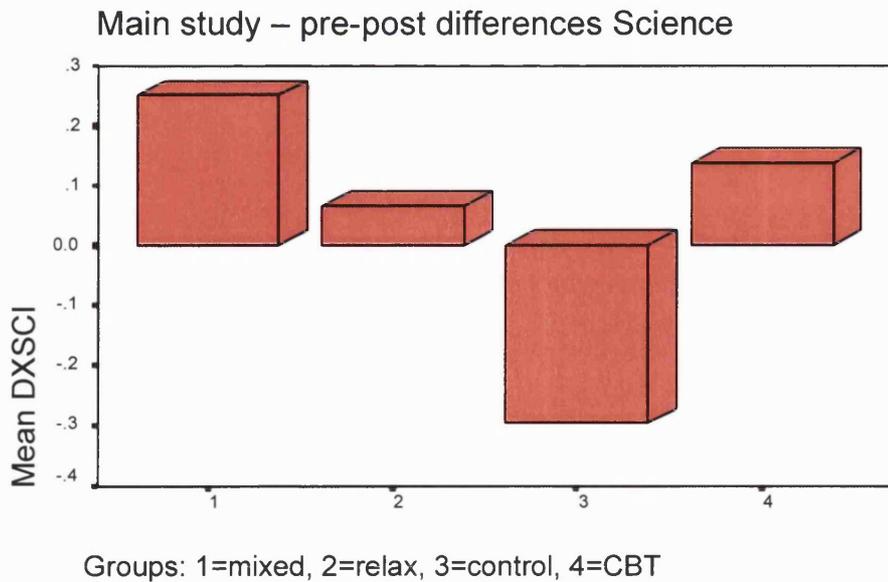
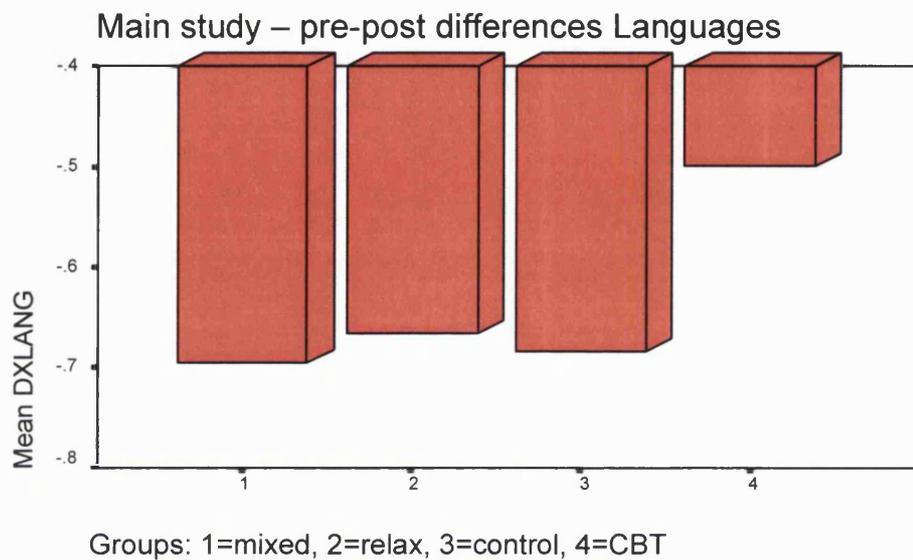


Figure 17 - Differences between predicted and achieved GCSE grades – Languages



4.1.5 Correlation between the quantitative measures

There was a statistically significant correlation between the total teacher pre anxiety ratings (Conners' Rating Scales– anxiety/shy factor) and the pre-self ratings of exam anxiety (Friedman FTA) ($\rho=0.212$, $p=0.049$, two-tailed). This finding suggests that there is agreement between the behavioural and cognitive measures of exam anxiety cross validating the measures used in this study.

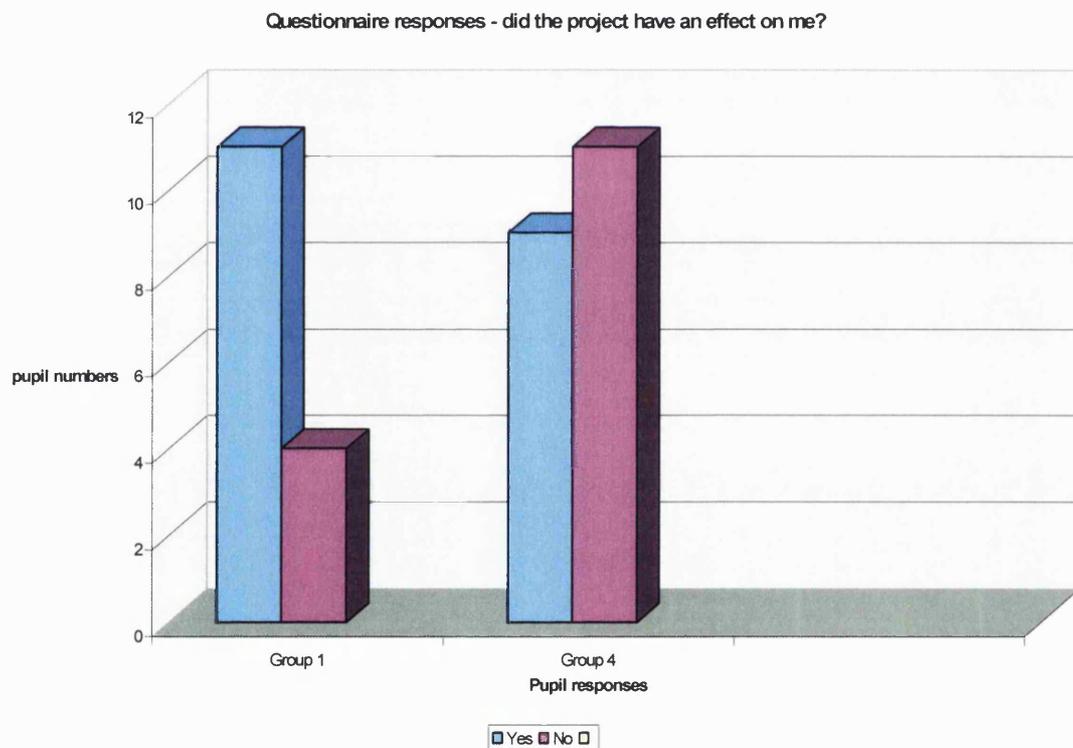
4.2 Results – qualitative data analysis

4.2.1 Pupil evaluation form

Two experimental groups (Group 1 mixed and Group 4 CBT) anonymously completed the pupils' evaluation form (Please see proforma in Appendix).

Figure 18 shows their responses.

Figure 18 – Pupil responses on the qualitative evaluation form



Pupils were asked whether the project had had an effect on them and what this effect had been. Their responses were grouped into categories and the most frequent responses were plotted.

Results show that in Group 1 – mixed, over half of the pupils said that the project had had an effect on them. Two thirds said they were using the strategies (11 Yes's and 6 No's). Pupils said they 'felt more relaxed, more

chilled out, more motivated, they did not get so stressed, they felt more confident and more relaxed about exams and other aspects of life'.

Group 2 (relaxation) did not complete these questionnaires due to the absence of their Form Tutor, who had been called to an emergency.

In Group 4 (CBT) two pupils said they were using the strategies and 15 said they did not. Nine pupils said that project had had an effect on them, 11 said it had not.

A random selection of the comments made by the participants included the following:

Pupil responses from Group 1: mixed group:

Pupil 1: 'I am generally a confident person and I get through exams with the usual dosage of panic, but I think the project will be helpful for others who do find exams hard to get through...'

Pupil 2: 'On the odd occasion I will use the breathing activity when stressed, but that's it'.

Pupil 3: 'I don't find myself getting stressed in tests in class, I have done better in certain subjects'.

Pupil 4: 'Found it boring and isn't relevant to me. I think it would be useful in the future but won't use it at this stage of life'.

Pupil responses from Group 4: CBT group:

Pupil 1: 'I change negative thoughts to positive ones...'

Pupil 2: I enjoyed most aspects of the lessons.... I feel the project covered most areas of stress etc but, as I manage with pressure well I feel it had no relevance to me at times...'

Pupil 3: 'I feel that some of the sheets were not useful. Class discussions were more helpful and we learnt more by hearing everyone's views. But no one should be forced to contribute..'

Pupil 4: 'I didn't like to take part. I think it should be our choice. I think I am a lot more confident and I've learnt to relax more....'

Some of these comments appear to be contradictory and confirm the finding from the pilot study, that the pupils did not always appear to like what appeared to be most effective for them. In spite of the ambivalence of some of their answers the pupils appeared to make use of elements of the sessions. The pupils said they liked the fun things such as relaxation, breathing exercises and music, but were more reluctant to engage in written reflection. The responses mirror the differential reactions of the pupils, some of whom felt they coped with examination anxiety well, but had not had any choice in participating in the project. Others appeared to respond to and to pick out the strategies that were novel or strategies they felt comfortable with. This is exactly what a universal, preventative programme would hope to achieve. The pupils liked the elements of active learning, but many of them did not respond well to the worksheets, perhaps because they were too much like school. In addition, a number of pupils had specific literacy and/or specific recording difficulties and found written work more difficult and less enjoyable. The pupils' responses illustrated the

importance of matching teaching to preferred learning styles for these particular interventions, as well as for the curriculum in general. These responses also highlighted the tension between the pupils' preferred learning styles and the practical and organisational constraints, which do not always provide appropriate venues and equipment that can easily transported around the school. Teaching aids had to be flexible, since the rooms provided for the sessions varied. The pupil responses also demonstrated the need for additional adults in large classrooms, to break up the class into smaller groups for discussions and active learning. Some of the comments of the CBT group reflected the challenge of translating cognitive behavioural approaches into the classroom and provided valuable feedback for further improvements of such interventions.

Despite these constraints there is some agreement between both quantitative and qualitative measures that the chosen interventions were effective in improving pupils' self-management of examination anxiety and their exam performance. However, as the discussion chapter will illustrate, these findings are complex and mirror the multi-faceted nature of the exam anxiety concept. Since the purpose of the interventions had been to provide differentiated choices of strategies for the pupils, the varied responses support the view that variety and choice of strategies is exactly what is needed to meet the individual needs of the pupils and to respond to the context.

Chapter 5 - Discussion

5.1 An examination of the research questions and hypotheses in the light of the results obtained

5.2 Interaction effect

5.3 Hypotheses and the findings of the study

5.4 Concepts and theoretical considerations

5.5 Theoretical issues – methodological aspects and weaknesses of this study

5.6 Alternative explanations

5.7 Practical issues of the study

5.1 An examination of the research questions and hypotheses in the light of the results obtained

Results of both the pilot study and the main study show that the selected interventions made a difference to pupil's self-management of exam anxiety in terms of teacher ratings of their behaviour, their own self-ratings of exam anxiety and, above all, their examination performance, when compared to a control group. However, these results are complex and they require some discussion as to whether they have been obtained in the smaller groups of the pilot study or in whole classes in the main study. Differences also occur when the interventions were carried out with volunteer participants (pilot) or with whole classes, when the sessions were part of the normal PHSE curriculum.

However, it would appear that the main study is able to provide some answers, albeit with a number of provisos, to the key research questions asked in this research project:

'What interventions are most helpful in enhancing the self-management of examination anxiety in adolescents?'

The pilot study had established that, for the small, psychologist-led groups of volunteers, cognitive behavioural approaches were relatively most effective in improving performance anxiety in terms of exam performance. Members of the CBT group had achieved significantly improved grades in English (written and oral) compared to the other three groups. There was no difference for the rest of the subjects. Teachers had rated the cognitive behavioural group as becoming

more assertive, as a result of the interventions, and pupils in this group had perceived themselves as marginally less anxious about exams than the other three groups. Conclusions from the pilot study were that all experimental groups did better than the attention control group, but the CBT group did relatively best.

In the main study, where interventions were jointly led by a teacher and a psychologist, and were delivered to whole forms (average size 25 – 29 pupils), the mixed group improved most in their exam results in English, Maths and Science, the CBT group made relatively the second largest improvement in terms of exam results and self-reported anxiety, whilst the relaxation group and the attention control group were rated as most improved by their Form Tutor, who was also an experimenter. There are consistent pointers to the fact that, whatever the setting, cognitive behavioural approaches, either as a component of mixed interventions or delivered singly, are effective in increasing the self-management of examination anxiety. Relaxation alone was less effective in improving exam performance, although more so than a standard PSHE curriculum. Mixed methods appeared to have been most effective with whole classes of pupils selected at random.

As evidenced in the literature on test anxiety, examination or test anxiety measures rarely agree (Levitt, 1980). However the key outcome measure (criterion variable) in this study was examination performance. What ultimately counts, is what pupils do during the exams, not so much how they feel or say they feel. Pupils may not be accurate in assessing exactly how they feel. However, the literature indicates that there is not necessarily a one-to-one correspondence between the degree of physiological arousal, experienced as

anxiety, self-perceptions of anxiety as tapped by cognitive self-rating scales and the effect of anxiety on performance. Some people may describe themselves as highly anxious and do well and some people may perceive themselves as less anxious and do badly. By the same token teachers may be no more accurate in assessing how pupils feel. This fact confirms findings by Bramston and Redman (2001), mentioned in the literature review, who had found little overlap between child, parent and teacher ratings of anxiety, despite the use of alternative forms of the same scale. Teachers, in particular, had reported having no way of knowing about many of the feelings in children they teach. This was in spite of the fact that the children in Bramston and Redman's study were considerably younger (seven to thirteen), than the participants in this study who were sixteen and seventeen years old. The feelings of younger children are considered to be more easily accessible than the feelings of adolescents who are becoming gradually more closed and remote to the adults around them and who confide more readily in their peers.

Is there a single most helpful intervention for promoting the self-management of exam anxiety, or would a mixed approach be more effective?

This study provided evidence that, in a school setting, the mixed approach including cognitive behavioural approaches, was relatively most effective in terms of improving examination performance in English, Maths and Science, measured as improvement relative to estimated grades. In the light of a considerable body of research on Maths anxiety, a mixed approach may well be most appropriate to deal with the many factors involved in Maths anxiety, such as the failure of memory processes. McLeod and Adams (1989) claimed that

meta-cognitive and managerial processes, such as simple decisions about whether to quit or continue, seem particularly susceptible to emotion. Buxton (1981) argued that it is the negative cognitive appraisal of the emotion involved in Maths tests which leads to the development of stable, negative affective beliefs in the individual and to panic response, leading to a drop in performance. Changing faulty thinking about Maths is likely to lead to improved performance due to a calmer and more positive attitude to Maths exams and reduced interference by extraneous thoughts.

The data suggest that mixed methods, which included a cognitive behavioural component, were most effective in reducing examination anxiety and in enhancing examination performance. The study also highlights the fact that examination anxiety is a highly complex construct and that there are no simple answers to the research questions. The relevance of the findings of this study on concepts and models will be discussed later in this thesis.

5.2 Interaction effect

The study demonstrates the complexity of the anxiety-performance relationship and the multi-factorial nature of the examination anxiety concept by the fact that there is an interaction between initial anxiety level and interventions in their effect on exam results and self-perceived anxiety. This interaction mirrors the inverted U-curve of anxiety/stress and performance first suggested by Yerkes-Dodson (1908). It is argued that it is an optimal rather than a minimal level of examination anxiety, which most enhances examination performance. This confirms the view by Isca Salzberger, that, in the right doses, anxiety can be a motivator. It also supports the views of Sarason (1980a) and other researchers

that in some circumstances mild to moderate increases in anxiety can facilitate rather than impair performance. This perspective also provides some cross validation for the examination anxiety model adopted in this study.

5.3 Hypotheses and the findings of the study

Evidence points towards supporting the general supposition that different types of interventions have a differential effect on the self-management of examination anxiety. There is support for Hypothesis 1 that 'mixed intervention strategies are more effective than single strategies or no strategies in reducing examination anxiety in secondary pupils and in improving examination performance' for some subjects such as Maths and Science. There is a consistent trend for the mixed group to do best, the CBT group to do second best, the relaxation only group to do third best and the attention control group to do worst in most of the subjects assessed, with the exception of English Literature, but these differences do not reach statistical significance.

The findings of the study also appear to support Hypothesis 2, that 'cognitive behavioural strategies are more effective than relaxation strategies or attention control strategies in reducing examination anxiety and enhancing exam performance in secondary school pupils'.

Doubts voiced in the discussion of the pilot study as to whether interventions including cognitive behavioural approaches will have any effect with larger groups of often reluctant participants who may have felt that they do not suffer from examination anxiety and, therefore, do not need such interventions, have been answered to some extent by the results of the study. These results

demonstrate a highly robust effect of interventions involving CBT approaches, which came through in spite of a reduction in the number of sessions and some methodological weaknesses and limitations of the study, which will be discussed below.

5.4 Concepts and theoretical considerations

A factor analysis of responses on the Friedben Test Anxiety Scale (FTA) by the main study participants (the pilot sample was too small to allow such analysis), provides some confirmation of the three main factors identified by Friedman and Bendas-Jacob (1997) in the test anxiety concept and provides additional validation for their test anxiety scale. These three factors are 1) physiological arousal or emotionality (Liebert and Morris, 1967), which Friedman and Bendas-Jacob refer to as 'outstanding physical and mental discomfort', 2) cognitive interference (Liebert and Morris's 'worry' concept) and Friedman's and Bendas-Jacob's 'cognitive obstruction' and 3) social anxiety, which Friedman and Bendas-Jacob call 'social derogation'. The present research findings also illustrate the fact that social anxiety becomes a more important factor mediating examination anxiety in adolescence, as pupils develop increased awareness of and dependence on peers.

These three main factors in adolescent test or examination anxiety also appear to support test anxiety models such as the models of Sarason, who implicates cognitive interference as a mediating variable for performance deficits in test anxiety (Sarason, 1980a). These mediating variables also form part of the multimodal intervention modal ('wheel' model) proposed in this thesis and illustrated in Chapter 1, Figure 2. Chapter 1. This 'wheel' mode would predict

that mixed interventions are most successful in promoting the self-management of examination anxiety, since they provide a range of interventions to choose from, matching need and occasion. The findings of this study provide some confirmation of the advantages of a multi-modal intervention framework, advocated in the introduction to this study. The mix of interventions would depend on individual differences and on initial levels of examination anxiety as well as on contextual variables. Relaxation training may more suitably address emotionality, i.e. physical discomfort and high physiological arousal, CBT methods would be more suitable in addressing worry factors, such as cognitive processing difficulties (loss of memory and attention). CBT methods would also suitably test out faulty social perceptions, such as the belief that exam failure will lead to loss of social status. In addition, the behavioural component of CBT would test out these faulty beliefs by providing evidence that exams do not always mean failure. These methods, if combined in mixed interventions, can be designed to match individual differences and to meet the need of the moment, ranging from a response to a crisis to calm preventative preparation for examinations.

The model proposed in this thesis also confirms the task specific nature of exam anxiety; i.e. some cognitive processes are more sensitive to interference by anxiety, as the research into Maths anxiety demonstrates.

The factor analysis of responses on the Friedben Test Anxiety Scale (FTA) provides some validation of previous attempts at deconstructing the examination or test anxiety concept by a considerable number of researchers. The labels for the concepts may differ, but what emerges, confirmed by the

present study, is a convergence of theoretical models as to some of the key factors involved in the test anxiety concept in older children and adolescents. These factors include physiological arousal, cognitive interference and social anxiety as well as their interactions.

The seemingly contradictory findings of the pilot study and the main study confirm the highly complex and diffuse nature of the test anxiety concept. They confirm that examination anxiety is not a unitary concept and that, for this reason multi-method interventions are likely to be more successful. The findings also confirm that the concept is difficult to operationalise and present methodological obstacles to the definition and measurement of the cognitions which are at the core of many explanations (Rachman, 1998).

5.5 Theoretical issues – methodological aspects and weaknesses of this study

5.5.1 Measurements of examination anxiety

The results of the study confirm the fact that multi-method assessment can contribute towards unpacking effective components of interventions. In addition, multi-measures provide complementary information about the physiological, cognitive and behavioural factors and components of the examination anxiety construct.

However, some of the measures used in this study, such as the screening questionnaire used in the pilot, were newly developed. For this reason their validity and generalisability have to be considered with some caution. Some of the measures such as the Conners' Teacher Rating Scales, in spite of the long

form being used, were not sensitive enough to register relatively small effects in a universal and non-clinical sample and were therefore, unable to detect change. Some of the pupils' scores were so low (or repeatedly 0), that a floor effect prevented an accurate measure of change. In any further study of this nature the use of alternative behavioural measures is recommended. Similarly, exam grades are relatively large-step, coarse measures of exam performance. Estimated grades could be inaccurate and present a distorted base line for any changes taking place.

Since this study was first begun in 1999, more anxiety scales for children and young people have been developed. Originally, the scales available, such as the Spence Children's Anxiety Scale (Spence, 1994) and the Revised Children's Anxiety Scale (Reynolds, 1985), were either pitched too young or not specific enough to assess exam anxiety. In the meantime, the Beck Anxiety Scale has been extended downwards from the floor age of 17 years. However, these scales are all general children's anxiety scales.

The results of the main study showed some degree of correlation of measures across cognitive and behavioural response channels, supporting the construct validity and reliability of these measures. The fact that only one particular factor (anxiety factor) of the Conners' Rating Scales was selected for comparison with the FTA anxiety self rating scores affects the reliability of this correlation to some extent. However, the Conners' Rating Scales are a robust and well validated instrument, and stringent levels of judging statistical significance were ensured by applying a Bonferroni adjustment. The correlation was registered in spite of other factors affecting the validity of the measures such as response

bias on both the self-rating and the teacher rating scales. Some of the participants responded in fixed patterns on the Friedben Test Anxiety Scale. Other mediating variables affecting ratings were social desirability. Lunneborg (1964) reported that pupils higher in social desirability report lower test anxiety scores. Some of the participants in this study showed unwilling to admit to the more unpleasant symptoms such as tenseness and palpitations, included in the scale, so that defensiveness was another factor affecting responses. Some pupils adopted a consistent response set and kept marking the bottom score of 1 for each question. Some pupils did not spot the reverse questions and ticked answers following the same pattern. Experimental group two (relaxation only) were so defensive, that they did not put their names on the FTA post-test, affecting the statistical evaluation.

Teacher ratings on the Conners' Teacher Rating Scales appear to have been influenced by rater bias as well. The Form Tutor who rated the experimental groups 2 (relaxation) and group 3 (attention control group) was part of the research team and led the interventions for group 2 jointly with the educational psychologist/researcher. Her pre- and post-ratings on the Conners' were substantially higher in the pre-test, and significantly lower in the post-test, than the ratings of the other Form Tutors who had blind-rated their Forms. The ratings of this particular Form Tutor were the only measure on which the control group did improve more than the experimental groups. It is interesting to note that these results go counter to the pattern shown by the rest of the results.

However, despite some methodological shortcomings of the measurements, there is agreement between the measures and there are good arguments for

believing that they do measure exam anxiety relatively well. Statistically significant intervention effects were registered on several measures, particularly on the performance measures. Possible alternative explanations for this fact will be discussed later in this thesis.

5.5.2 Participants

5.5.2.1 School variables

The fact that all the participants came from the same school may have introduced a 'school' variable. Conversely, had several schools participated, additional mediating variables would have come into play. It is worth speculating, whether outcomes would have been different, if the study had taken place in a comprehensive or a grammar school.

5.5.2.2 Sampling issues

Participation in the main study was compulsory, since the sessions were part of the educational curriculum. This introduced additional mediating variables such as differing motivation and engagement by the pupils. This fact became clear in the qualitative feedback of some of the participants who commented that they did not need input on the management of examination anxiety, since they were not anxious about exams and knew how to cope with them. These pupils participated in the sessions because they wanted to be helpful to the experimenter in contributing to the study, and if they found the activities to be entertaining. Some of the pupils did not engage with the sessions. They failed to listen, did not participate in the group discussions, or they chatted to each other. This fact illustrates the difficulties of carrying out a study of examination anxiety with a universal school based population, which includes pupils with

very low examination anxiety levels. A practical adaptation of these findings to the school curriculum on a preventative programme for examination anxiety has to take these aspects into account.

The same difficulties did not arise in the pilot study where the participants were highly motivated, since they had volunteered to participate in the study and had control over their participation.

Selective versus universal sample of participants

The interaction between initial anxiety levels and intervention effect shown by the results of the main study illustrates the differences of carrying out a study in a clinical setting, where pupils may be referred and have initial high anxiety levels, compared to a universal, school setting, where participants were randomly chosen. Preventative, educational programmes need to take into account that such interventions are not likely to get similar interest and engagement from all pupils and need to be adapted to the level of need and to individual differences of the pupils.

Perhaps a preventative, whole school PHSE programme on general aspects of life skills including anxiety and stress management could be supplemented by some more therapeutic smaller group work with self-referred volunteer pupils. This programme could be delivered by the School's support services, such as the Pupil Referral Units, Behaviour Support Services or the Educational Psychology Service. The main purpose of the preventative emphasis would be to create a climate in the School, in which emotions including anxiety are openly discussed and their energising aspects are recognised.

Sample size

Samples in the main study were relatively small and allow only tentative generalisations from the findings. In spite of this, statistically significant intervention effects were emerging, which point to some robust effects involved.

5.5.2.3 Design issues

Intergroup comparison was by intertreatment comparison, i.e. controlling for the length of exposure in all four groups. It was difficult to control for the exact content of the sessions as well. The programme of the mixed method consisted of half the number of sessions (two sessions) of relaxation and half the number of sessions of CBT approaches. The other two groups had four sessions of relaxation (Group 2) and four sessions of CBT approaches (Group 4). It could be argued that the mixed group (Group 1) received two incomplete intervention sessions which did not add up to the sessions received by the other two experimental groups and were, therefore not comparable. In order to control for this fact, the experimental design would have had to include permutations of interventions such as including additional experimental groups receiving half the number of relaxation sessions and half the number of control sessions as well as half the number of CBT sessions and half the number of control sessions. The researcher was aware of this, but decided that such an experimental design would have been too cumbersome for real life research. There is scope for further research teasing out which particular element of the mixed sessions was effective, by comparing mixed sessions consisting of half of the PHSE attention control sessions and half each of the relaxation and CBT sessions.

5.5.2.4 Procedures

Session protocols and protocol integrity

The interventions were newly adapted to the school curriculum, and therefore clear protocols were required. There were not enough teachers or educational psychologists available to allow observation of the sessions in order to ensure session integrity. The comparability of the sessions was ensured by scripts, which were followed by the teachers, and by their training. The fact that sessions were led jointly by one teacher and the researcher ensured some comparability. In the future manuals will have to be developed which contain the interventions, which proved most successful in this study. If these interventions are to be offered to schools to be disseminated to pupils through a PSHE curriculum, they will have to be transparent and clearly documented, so that they can be generalised. Future research would have to look at the effectiveness of teacher-led interventions.

5.5.2.5 A comparison of therapeutic and educational settings – implications and questions for future research

The present study investigated pupil-focused variables mediating exam anxiety rather than contextual variables such as the school environment. These environmental considerations were beyond the scope of the study and merit further research in a separate study.

In this study some of the differences between more therapeutic, selective and universal educational settings were illustrated quite clearly between the pilot and the main study. Psychotherapeutic interventions are interventions, which

are open-ended and exploratory, where outcomes are determined by the participants. Their structure is invisible. Psycho-educational interventions are interventions for which the curriculum has to be more structured and explicit in order for the teacher to be able to manage larger groups. Therapeutic interventions take place in private, closed, settings, usually in smaller groups and individually, while educational interventions take place in the public settings of usually fairly large classrooms.

In the case of this study the setting was school-based, with a pupil population whose anxiety levels were normally distributed, with intervention procedures adapted from clinical/therapeutic settings to an educational setting and delivered jointly by an educational psychologist and a teacher. The study provided some evidence that this can be effective. Further research is needed to establish whether teachers working from a script can successfully deliver CBT interventions in the classroom.

5.5.2.6 Experimenter effects

In this study teacher participants were not 'blind rating', so some rater bias may have crept in, as discussed earlier in this thesis.

Uniformity of delivery

Groups three (control) and four (CBT) had the same teacher. The control group had only one teacher-presenter, whilst the experimental groups had paired presentations. (teacher-educational psychologist). It could be said that the experimental groups did better, because they had more adult input and attention than the control group.

Number and length of intervention sessions

The sessions were shorter than the sessions reported in the literature and there were relatively few sessions per group. The number and length of the sessions were dictated by time-tabling demands. This could have affected outcomes. It took time for the pupils to understand the CBT approaches.

Reliability and validity

Internal validity may have been affected by maturation or regression of the participants. Some pupils may have become more confident through growing up in the time-span of the study. Others may have had events in their lives which affected their anxiety levels, and over which the study had little control.

Gender effects

The gender effects reported by Barrett (2001) were confirmed, to some extent by this study. The girls reported themselves as more anxious at first, and they appeared to have been more responsive to the interventions, in spite of the fact that there were both male and female experimenters. However the girls may have been more open about reporting anxiety. The implications of this are that there has to be awareness of gender differences in the way pupil manage and express their anxiety and schools have to be sensitive to these differences.

5.6 Alternative explanations

Some of the possible alternative explanations for the results, such as differential teaching and predictive ability of subject teachers have already been addressed under the heading 'limitations of the study'.

5.6.1 Skewed sample

The participants came from a school population, which was not normally distributed according to ability factors, since the top 20% of the ability range attended grammar schools. The school population included a relatively higher population of pupils with special educational needs, such as specific literacy difficulties. This may have affected their motivation to complete the worksheets, particularly in the CBT sessions.

5.6.2 Effects of outliers' results

The control group included some participants who did exceptionally badly in some of the GCSE exams. One of the pupils dropped from an estimated 'B' to a 'U' in the Maths exams. However, the differences between the experimental and the control groups remained statistically significant, even when this outlier was removed.

5.6.3 Differential teaching effects

It is quite difficult to improve by one grade from estimated to achieved GCSE results. Teaching effects and rater accuracy of the subject teachers were factors, which were difficult to control for.

Figures 18 to 22 below illustrate the fact that the distribution of differences between estimated and achieved exam grades for the whole pupil population taking part in the study was different according to subject.

Figure 18 – Pre-post differences in GCSE grades (points) for the total sample – English

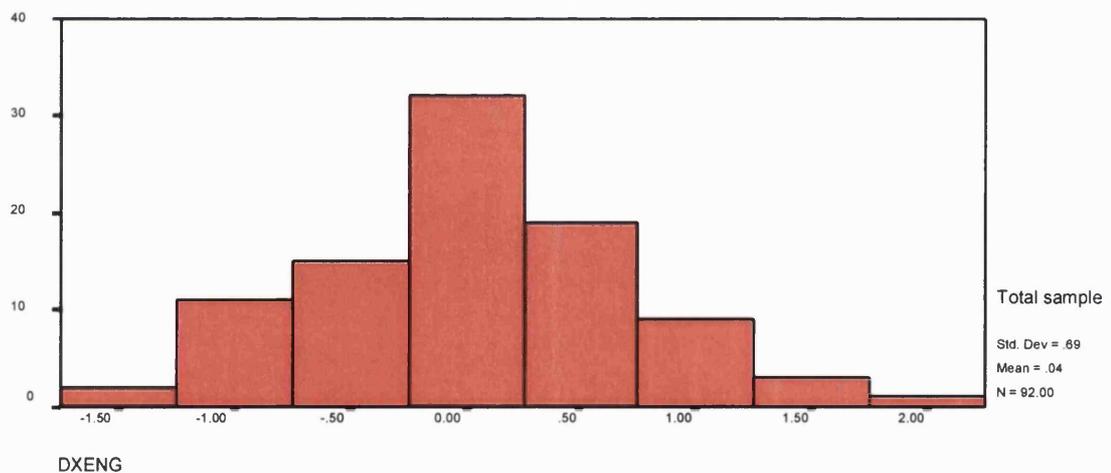


Figure 19 – English Literature

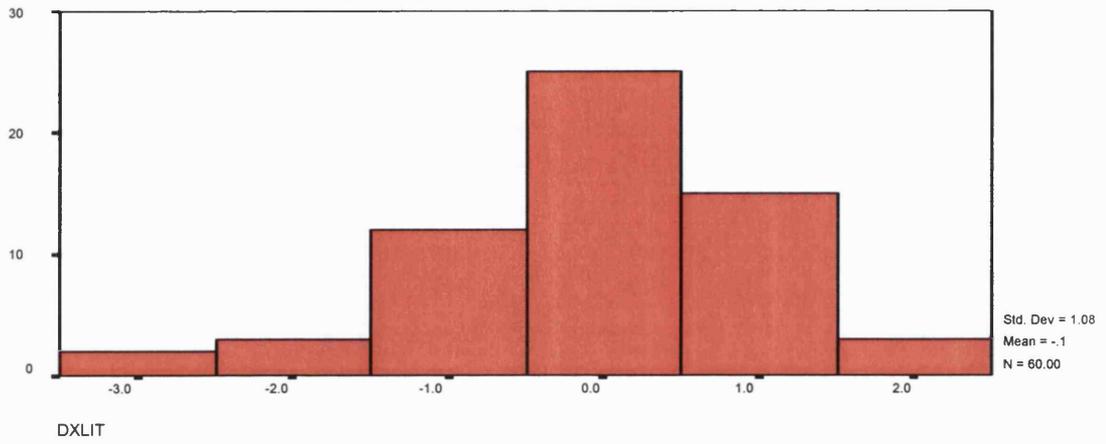


Figure 20 - Maths

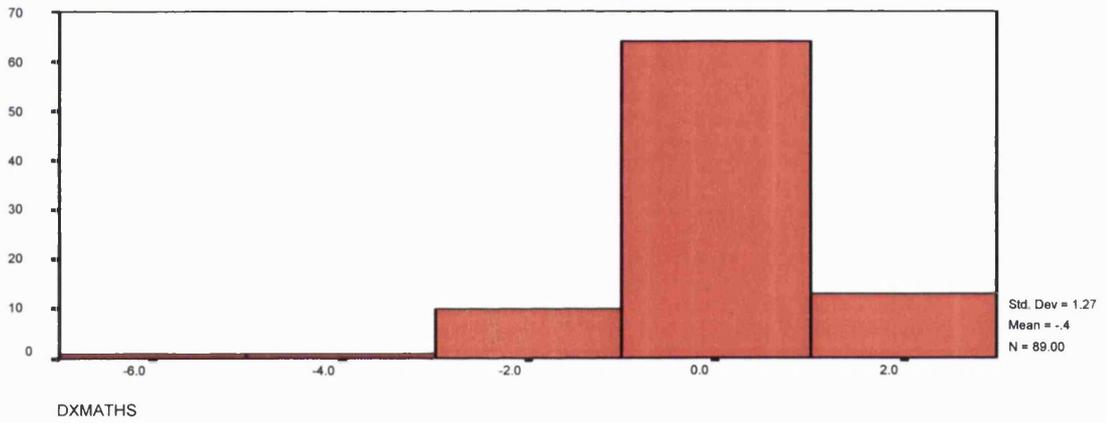


Figure 21 – Science

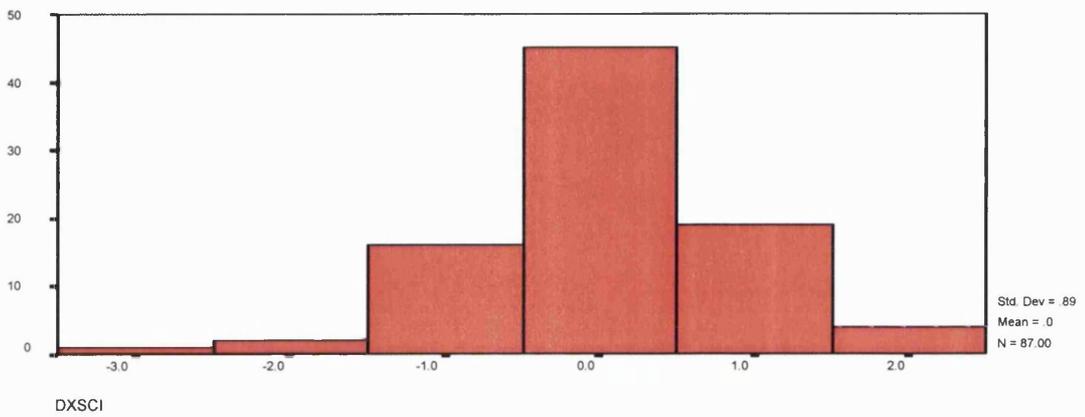
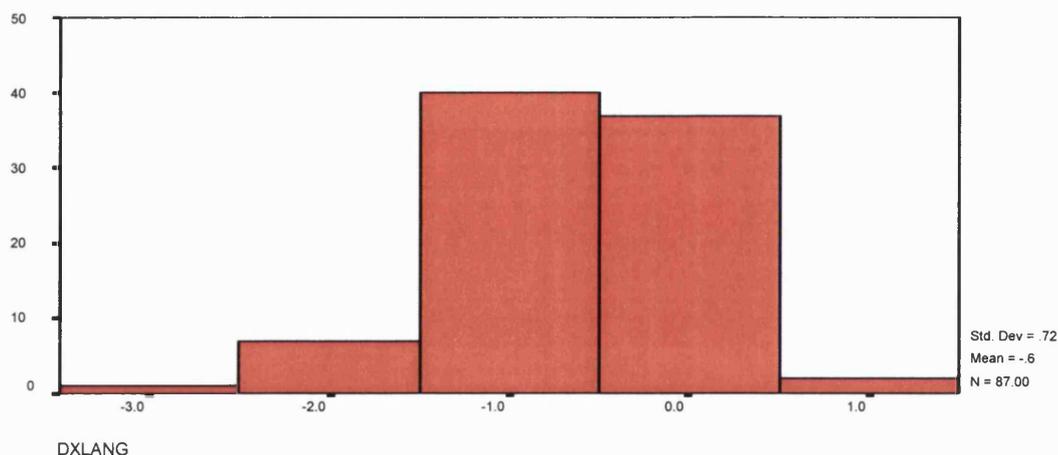


Figure 22 - Languages



As Figure 18 on the previous page illustrates, most pupils' results for English corresponded closely to teacher prediction. For Languages however, most pupils in the total sample dropped in their achieved performance compared to estimates, implying factors such as poor language teaching or poor teacher estimates. One other mediating effect could have been that all the French, Spanish and Italian had been grouped together into one total result. It is interesting to note that none of the groups appeared to respond to the interventions as far as languages were concerned. Perhaps there is a greater skill than anxiety element in language performance. The greatest confidence or anxiety reduction in pupils will not compensate for poor language learning. Results point to the fact that more thought may have to be given to improve language teaching in this particular school. This fits in with discussions in the press of the need to improve language teaching in general.

5.6.4 Differences in ability

The sample was random and therefore did not control for ability. The differences in the exam results between the groups could have been caused partly by a difference in ability for the different subjects rather than by the interventions.

5.6.5 Task specificity of the subjects

Different subjects demand the completion of different tasks and different information processing components. The subjects could have been differentially sensitive to interference due to anxiety. It is not entirely surprising that Group 1, with the lowest initial anxiety, did relatively better in subjects such as Maths and Science, whilst the more anxious Group 3 (control), did relatively best in English Literature. Perhaps a sensitivity to anxiety goes alongside greater sensitivity and ability for the more creative, unstructured subjects.

5.6.6 Missing scores

Missing scores were controlled for in the statistical evaluation. However the fact that many of the pupils took fewer GCSE subjects may have skewed results, influencing the sample size.

A range of other possible mediating variables has not been considered in this study, and would have gone beyond its scope. In particular these were the influence of study skills and information processing variables such as attention control, as well as temporal variables affecting examination anxiety.

5.7 Practical issues of the study

A number of practical constraints, particularly environmental factors, are likely to have affected results of this study, introducing contaminating variables and providing further alternative explanations.

5.7.1 Participants' motivation

The motivation and commitment of some of the participants was limited, since they felt they had not had any choice about participating in this study. Some were indifferent; some were disaffected about school learning in general. The status of PSHE lessons appeared to be low. One young teacher was overheard saying: 'Oh dear, I hate PSHE!' This was an additional reason why some of the pupils were not so keen to participate.

5.7.2. Group size and group dynamics

The experimental Forms were not permanent groups. They only came together for the PSHE lessons and they did not know each other particularly well. Group dynamics influenced the sessions. Some angry or aggressive pupils tried to dominate class discussions. Some of the shy pupils were reluctant to speak. This was different to the pilot study, where all the pupils had contributed to the group discussions.

Participants said they preferred active learning and group discussions. However, many of the pupils were not listening to each other. There was tension between the open-ended nature of more 'therapeutic' type interventions and the need to structure programmes for larger groups, which had not been the case in the pilot study. The challenge had been to preserve the more private

nature of the pilot study in larger classes, so that more anxious pupils felt able to contribute to class discussions. This really needed more adults in the classroom, to break the class down into smaller groups.

5.7.3 Participant teachers

Group 4 (CBT group) was new to the PHSE teacher and he had to develop a relationship with them. Participant teachers missed some sessions due to illness or due to emergencies in the School, and supply teachers were brought in, who were not familiar with the study.

The researcher was aware that the fact that rater bias may have been reduced, if the Conners' pre-post behaviour rating questionnaires had been completed by teachers who were not participating in the study and that an outside evaluation would have been more objective. The practical constraints were that there were no teachers free to complete the questionnaires and not all the teachers know the pupils as well as their Form Tutors, some of whom were involved in the study.

5.7.4 Role and status of the researcher - educational psychologist

The researcher had been introduced as an educational psychologist. Some pupils did not quite know what to make of this. The pupils had been quite concerned about why they had been selected for the study. They were reassured when the teachers explained to them that they had been chosen because of their own interest in the study, since they were their Form Tutors or PSHE teachers. The pupils were quite happy with this and responded to the

request of contributing to a study, which would help other pupils, if they felt they did not need such an intervention themselves.

5.7.5 School environmental aspects

The accommodation for the sessions was changeable. The sessions for Group 4 were held in the Computer Room, which was not suitable for this sort of input. The layout was formal and restrictive and too crowded with desks to organise circles for the class discussions.

For some of the relaxation sessions, Group 2 (relaxation only) had to go in search of appropriate rooms, since the gym, which had been allocated to these sessions, was needed for other purposes. The drama room was used for relaxation sessions, but the floor was too dirty for stretching out exercises. Other rooms, such as the mini-gym, were too cold and too cramped, to promote true relaxation. During one of the sessions, a trumpet started playing next door, just when the pupils had started to relax and calm down!

5.7.6 Methods of presentation

Presentation and activities could have been more varied and differentiated, if equipment such as flipcharts, OHPs and videos had been accessible on a more flexible basis and could have been set up in the classroom beforehand, since at times it was not clear which room would be used.

5.7.7 Content of the sessions

Some of the worksheets proved to be too difficult for some of the pupils with specific learning difficulties. They did not understand some of the tasks. Other

pupils said that the worksheets had been boring, since they were too much like schoolwork. Presentation of the sessions needed to be differentiated similarly to any other school lesson.

These practical constraints illustrate the difficulties and the considerable number of nuisance variables affecting real life research in a busy secondary school, with overstretched teachers and poor facilities. The researcher gained valuable additional insights into today's pressures and the constraints of busy secondary schools for both teachers and pupils.

All the participating teachers were highly committed to the project and put in a lot of extra work to allow it to run. A study such as this makes considerable additional time demands on teachers, particularly if a research study is carried out from without and if the researcher is not part of the school. There was tension between the daily demands on the participating teachers who all were senior teachers and had pastoral care and managerial roles and their commitment to the research study, which imposed additional commitments on them. The enthusiasm, with which these teachers coped with these demands, was remarkable. It demonstrates the importance of the fact that research is only truly effective, if it is needs-led and the goals of the research are aligned with the goals of the setting (Hardy, 1995).

Chapter 6 - Evaluation of the study

6.1 Conclusions

6.2 Conclusions of the participating teachers

6.3 What has been learned by this study?

6.4 Practical implications for the work of educational psychologists

6.5 Future recommendations

**6.6 Opportunities for professional and personal development
generated by the study**

6.7 Some final thoughts – what did the study achieve?

**6.8 Some suggestions for future research in the field of anxiety
management**

6.1 Conclusions

In spite of the limitations and constraints listed earlier, the outcome of this study made a significant difference to some of the pupils' self-reported and teacher-observed examination anxiety, but particularly to their examination performance. These results point to a robust effect of some of the strategies evaluated in the study. The study provides some evidence that cognitive behavioural approaches are effective in dealing with pupils' examination anxiety, particularly if combined with other strategies such as relaxation.

In short, pupils are more successful in controlling their own anxiety, when they have been equipped with a choice of strategies to do so.

The study has begun to de-construct the examination anxiety concept and provided some evidence that the main factors of examination anxiety in adolescents are physiological arousal, cognitive interference and social anxiety. These same factors have been identified by Friedman and Bendas-Jacob (1997) in their test anxiety scale, the Friedben Test Anxiety Scale (FTA).

The current findings confirm Graham's view (1998), that, if CBT is part of a broader multi-modal or mixed approach, a larger anxiety reducing effect is achieved than if an intervention is used in isolation. This matches the multi-factorial concept of examination anxiety proposed in this study. The study provides some evidence that CBT on its own, but particularly combined with other approaches can bring about positive change in as few as five universal, whole-class sessions. This confirms findings by Squires (2001) with younger pupils. The study also provides some support that CBT based approaches can be successfully integrated into the school curriculum, confirming Barrett and

Turner's conclusions (Barrett and Turner, 2001). Such approaches would be ideally suited to EP practice, since they are aiming at the whole school; they are preventative as well as short and effective. They can be delivered by teachers, once they have been trained in these methods.

The multi-method assessment in this study, which includes behavioural measures and combines quantitative and qualitative methods, provides some valuable insights into how pupils feel about examination anxiety.

6.2 Conclusions of the participating teachers

The participating teachers jointly summarised their views on the outcomes and implications and their general conclusion was that 'overall the course was a worthy one'. Some comments and improvements were also noted, especially: 'Using the computer room was not such a good idea. In future other classrooms could be used.

Starting off with a new group and, therefore, new relationships was not a good idea. In future the content can be introduced after the pupils and teacher have gained confidence in each other.

The content was good but the delivery would have been improved by a regular practising teacher.

Some interesting 'mind' exercises could be useful before the actual course content is given'.

Particularly positive comments were:

'The pupils eventually understood all the principles. In discussions after the course they showed good retention of the information.

Since the course one pupil has tried to develop his own form of stress release.

The two-presenter approach appeared to work.

The course gave pupils an opportunity to try new ideas to help them prepare for their examinations'.

These comments very much echo the points made earlier in the discussion.

6.3 What has been learned by this study?

Hart (1998) defined originality in research in the following terms:

1. Doing empirically based work that has not been done before;
 2. Using already known ideas, practices or approaches but with a new interpretation;
 3. Bringing new evidence to bear on an old issue or problem;
 4. Creating a new synthesis that has not been done before;
 5. Applying something done in another country to one's own country;
 6. Applying a technique usually associated with one area to another;
 7. Being cross-disciplinary by using different methodologies;
 8. Looking at areas that people in the discipline have not looked at before;
 9. Adding to knowledge in a way that has not previously been done before
- (p24).

Has the present study filled some of these gaps? What was new or original in this study?

6.3.1 Preventative, universal study

Universal interventions are those applied to whole populations, regardless of their risk status. Except for Barrett and Turner's study (2001), there have been few such universal, school based programmes for preventing anxiety in children and young people. Barrett and Turner come from a different discipline in psychology – they are clinical psychologists.

6.3.2 School-based setting

This study was carried out in a real-life, school setting. The study intermeshed with the ordinary mainstream curriculum, using PSHE slots and involving teacher-experimenters. So far, artificial situations such as completing anagrams in test conditions had been the setting in school examination anxiety research, rather than real life examination situations.

6.3.3 EP and teacher experimenters

In the main study paired experimenters, i.e. a teacher and the educational psychologist/researcher, delivered the interventions. So far studies were carried out mainly by clinical psychologists, such as Barrett and Turner (2001) in mainly clinical settings. None of these researched examination anxiety, per se.

6.3.4 Sample/target group

The target group were adolescents in school rather than college students with whom most test anxiety research has been carried out.

The sample was universal, school based and random. Participants were volunteers in the pilot study and randomly selected in the main study.

6.3.5 Method

The sessions, including the attention control group, rather than a wait-list control group, were built into the PSHE curriculum of the school.

The interventions were whole-class, whilst so far, interventions were mainly group-based or individual interventions.

6.3.6 Procedure

The study compared single methods with mixed methods. There is no evidence that this has been done before in this setting. The interventions were scripted.

6.3.7 Outcome measures

Following the recommendations in the literature, (Kazdin, 1986), multi-method measures were used. These measures were triangulating qualitative and quantitative measures, including cognitive (self-report), observational and behavioural measures. The literature reports mainly the use of self-report measures such as children's anxiety scales, as outcome measures. In addition, this study trialled a test anxiety scale for adolescents developed in Israel, for the first time in the UK.

The study used performance measures (examination results). So far very few studies investigated the anxiety-performance relationship in real life examination situations. These links are more commonly investigated in fields such as sports psychology (Hardy, 1999).

6.3.8 Economy and practicality (relevance to real life)

This study consisted of 5 sessions of 45 minutes each, using school timetable slots. The number of sessions in the critical study (Barrett and Turner, 2001) was 10 sessions at 75 minutes each.

The study demonstrated that the interventions can easily be incorporated into the school curriculum. It provided evidence that as few as five lessons covering a range of interventions resulted in a significant drop in pupils' self-reported exam anxiety and an improvement in their examination performance. This is a resource-effective way of helping pupils to self-manage examination anxiety which can be handed on to schools by training teachers to deliver the sessions as one module of the normal PSHE curriculum. For this reason the study has important practical implications.

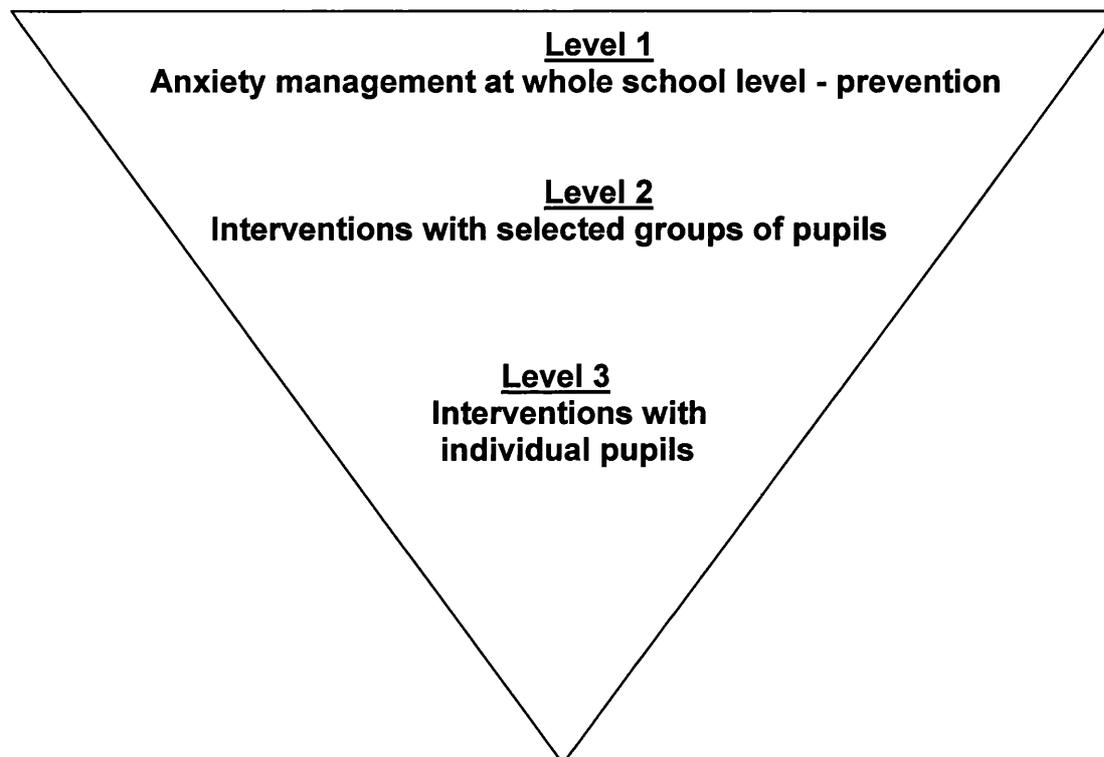
6.4 Practical implications for the work of educational psychologists - What should EPs do to help teachers manage anxious children and to help anxious children to manage themselves?

6.4.1 Application to schools

This study has practical relevance to educational settings, informing the following assessment and intervention 'pyramid' for the management of anxiety in schools.

A framework for the management of anxiety in schools

Continuum of interventions – top down



Level 4 - Interventions with parents

As the above framework suggests, anxiety management strategies could be used in schools on a continuum and in a tiered approach, including preventative and universal whole school initiatives, more selective group work and work with the most vulnerable pupils at individual level.

6.4.1.1 Level 1 – Anxiety management at a preventative, whole school level

The strategies, which proved to be empirically successful, need to be refined and disseminated to schools and other support services. This can be done in

training sessions with the whole staff and with colleagues from other disciplines. These strategies could be included in a practical package for schools, to be used preventatively, as a module of the PSHE curriculum, for instance. In addition, the approach could be adapted for stress management sessions with teachers, since they need support with managing stress as much as the pupils.

Anecdotal evidence from a more long term follow-up of the study has shown that some of the participants used the strategies they had learned during the pilot project beyond examination preparation, for other evaluative situations, such as performing in public. Some of the pupils involved in a critical incident in the school some time after the study was finished, were reported by their teachers to be coping better with the stress of this incident.

The findings could be used in assemblies, to create a climate of openness about discussing, expressing and sharing emotions. They could be used to illustrate the fact that strong emotions have a positive and energizing purpose. The findings could contribute to focusing attention away from pathology and preoccupation with the worst things in life, to building positive qualities such as recommended by the Positive Psychology movement (Seligman and Csikszentmihaly, 2000). The strategies could also be used to focus on successful coping responses of both pupils and teachers.

Children need preventative input much earlier. They need habituation to examination situations, which could be made part of a normal routine for exams such as the SATs (Connor, 2001). There are now more materials on the market to help schools and parents in supporting their children through exams. This

study will contribute to a critical evaluation of these packages and assist schools with the selection of the most effective packages.

Educational psychologists could support schools in the identification and assessment of pupils at risk of strong anxiety, even at risk of self-harm, so that they are not overlooked and are given help. The screening questionnaire developed for this study would be useful in this. Educational psychologists could provide more insight into covert anxiety in pupils.

Strategies could be disseminated to other types of educational institutions, in particular to colleges and universities, to help students prepare for exams.

The findings of this study could be disseminated to the behaviour support services and other agencies supporting schools with the management of emotional and behaviour difficulties, such as the Pupil Referral Units.

The whole school interventions provided through the PHSE curriculum and a climate of openness about expressing and dealing with emotions encouraged throughout lessons and assemblies and other school events, will leave some pupils who need more selective and focused interventions to help them self-manage their anxiety. This identification by provision of pupils who are not responding to a whole school approach could then lead to smaller group work at level 2 of the framework.

6.4.1.2 Level 2 - Work with selected groups of pupils

In addition to whole school initiatives, educational psychologists and other behaviour support services such as the Pupil Referral units could work with smaller selective groups of volunteer pupils who need a more intensive and therapeutic approach to learning to self-manage anxiety. These groups could eventually be run by specially trained teachers from within the school, such as the teacher-participants of the study as well as by Youth leaders attached to the school. These groups could start early in pupils' school lives, as early as year 3 in primary school and year 7 in secondary school and interventions could target transfer periods. These groups could also be offered to schools as part of standard interventions by behaviour support services. One of the important lessons learned from EP work with anger management groups and confirmed by this study, is that any such group intervention has a considerably greater chance of success, if the selected pupils are volunteers. The self-management questionnaire developed for the selection of the participants in the pilot study would be useful for assessment /screening and selection of pupils for both group work and individual interventions.

6.4.1.3 Level 3 - Work with individual pupils

Vulnerable and anxious pupils who respond to neither the whole school approach nor to group interventions could be offered individual interventions, including the approaches found to be most effective in this study. These approaches could be tailor made to the needs of the individual pupils and could include a range of cognitive behavioural and relaxation approaches to help them manage their anxiety and stress better. These approaches could be extended to targeting other forms of anxiety such as school refusal, and could

be offered on an individual basis to vulnerable pupils with crippling and excessive anxiety problems.

Lindsay (1999) suggests that cognitive behavioural approaches could be used, in an adapted form, to help anxious pupils with learning disabilities. The strategies found to be successful in this study could also be extended down to younger pupils.

It is vital that at all levels of the framework support to schools is offered by a multi-disciplinary team, including Child and Adolescent Mental Health Services, particularly for pupils who suffer from mental health problems.

The framework could also be adapted to the management of other crippling emotions such as interventions of anger management.

6.4.1.4 Work with parents

It is of equal importance that work with parents to help their children manage exam anxiety and other forms of anxiety, is ongoing at all three levels in parallel to work in school.

It was beyond the scope of this study to involve parents in the initiatives, other than to seek their consent. There is considerable interest among parents, though, to help their children with managing exam anxiety. This need has been recognised and addressed by the Surrey Educational Psychology Service. Hinton and Norton, (2000) two educational psychologists of the Surrey EPS team developed a joint workshop for pupils and parents intended to be run in

schools in the autumn term prior to the mock GCSE examinations. It complements the study skills training given to pupils in schools. These workshops have been found to be most effective when run jointly by school staff and their educational psychologist. The pack includes leaders' scripts, overhead transparencies, handouts, a pupil stress questionnaire and a relaxation audiotape. The author is indebted to the Surrey team for adapting some of their materials for the sessions delivered as part of this study. This is acknowledged in the individual scripts.

6.5 Future recommendations

6.5.1 Recommendations for research

Research is needed on the influence of the school environment on examination anxiety and performance. Some of the pupils' comments, when asked about their 'exam from hell', were 'cold examination halls, teachers walking up and down with hostile faces and wobbly desks'.

In addition, a long-term follow up of this study is needed, to evaluate sleeper effects and generalisation to other forms of evaluative anxiety and to life skills. Graham (1998) suggested that the common factor underpinning the diverse collection of CBT interventions is their reliance on changing emotions and behaviour through the mediation of cognitive processes. Graham questions whether such a loose definition is sufficient and highlights the need for further research into testable models of childhood problems. Stallard (2002) confirmed this view and called for more research into children's cognitive processes and the development of testable and developmentally appropriate theoretical models, which inform cognitive behavioural interventions. Further research is

needed into the use of cognitive behavioural therapy with younger children. Another important area for future research is the role of parents/carers.

More work is needed to deconstruct the examination anxiety concept and to refine measures of examination anxiety. There is scope for a further study to establish the effectiveness of CBT interventions, if they are delivered by teachers only.

Stricter intervention protocols need to be established, so that studies can be more controlled. Another lessons learnt from this study is that teacher ratings of intervention effects have to be carried out by teachers who are not involved in the study and therefore more objective. It would be worth replicating the study with the recommended improvements, including extending it to larger samples of pupils from more schools of different types, such as for instance to grammar schools.

6.6 Opportunities for professional and personal development generated by the study

The experience gained through this research has already had a number of spin-offs in my daily practice as an educational psychologist. The interventions have been shared with colleagues from the educational psychology service and from the Pupil Referral Units who applied them successfully to help pupils with separation anxiety, social anxiety and examination anxiety in different school settings.

To quote just one example of a 15-year-old grammar school pupil who experienced panic attacks and extreme feelings of sickness over a whole year,

particularly when he found himself entering into more formal settings such as assemblies. This pupil had a highly stressful family history. He lived with his mother, but his relationship with his mother had deteriorated over the last few years to such an extent that it was at the point of complete breakdown.

The link educational psychologist of the school was asked to see this pupil. The purpose of her involvement had been to meet with him and to monitor his progress. The EP appointment followed a series of regular sessions that had taken place at the local Pupil Referral Unit between this pupil and a highly experienced and effective teacher at the PRU. The sessions at the PRU had taken the form of cognitive behavioural therapy, which the PRU teacher had been enabled to adopt through ongoing consultation with the author of this thesis, sharing things learned from this study. One of the factors emerging from these consultations was that the pupil was also secretly extremely worried about the exams.

The pupil explained to the link EP the value of his visits to the Pupil Referral Unit and identified a number of positive outcomes that had resulted from the sessions there:

1. He and his mother were not arguing as much.
2. The pupil had been going out much more with his friends at weekends and was feeling less socially insecure.
3. The pupil felt much more positive about home and school.

The pupil's main concern of learning to tackle his feeling of sickness in formal settings (especially assembly and examination halls) had been effectively resolved. During the discussion with the school link EP this pupil, who was very

able, was able to recognise similar experiences that he had had in relation to sickness and to draw upon the success he had achieved in overcoming his difficulties in these settings and apply them to other situations such as for example, when going to supermarkets. The pupil reported that he was feeling far more empowered and equipped to cope with his difficulties and recognised the significance of being aware of the thought processes behind his concerns.

This case is just one example of similar, quite short and effective interventions with anxious children, which were a spin-off of the experience, knowledge and confidence gained from carrying out this study.

Another important spin-off was the opportunity to be part of a busy secondary school environment for a prolonged time, and to be able to share and understand the demands and stresses facing secondary school teachers and pupils. There were many personal spin-offs from this study such as increased knowledge and confidence to support schools with the management of anxiety. One of the most satisfying and most valued outcomes, however, was the fact that this study appeared to have made a difference to some of the participating young people by enabling them to take more control of their anxieties, and, hopefully, their lives.

6.7 Some final thoughts – what did this study achieve?

On a personal level I have a sense of achievement that I was able to transpose a traditional, controlled, lab-type experimental design into real life classrooms and that, despite the practical constraints and limitations this study yielded results which are breaking new ground.

The tensions between producing a tightly controlled, scientifically valid study and the constraints of applied research in a real life setting, not least the ethical demands, are considerable. In my opinion this study has overcome some of these challenges.

What distinct contribution did this study make?

The study carried out a comprehensive overview and critique of examination or test anxiety research and attempted to deconstruct the exam or test anxiety concept. The major factors mediating exam anxiety in older pupils and adolescents were found to be social anxiety, physiological arousal or 'emotionality,' and cognitive interference or 'worry', confirming previous findings in the literature. The study combined and evaluated existing intervention strategies and tried these in new, real life contexts. The study developed a new screening questionnaire for anxiety and tried a test anxiety scale developed in Israel (The FTA Test Anxiety Scale) in a UK school setting.

Looking back at Hart's (1998) criteria for originality listed earlier in this thesis, this study met many of the criteria listed:

The study covered empirical work, which had not been done before, by carrying out applied research in a real life, school based setting. The study adapted approaches, such as cognitive behavioural approaches, from one psychological discipline (clinical psychology) to another (educational psychology), by creating a new synthesis and bringing new evidence to bear. The study adapted a test anxiety scale developed in another country to this country. The study used measures such as performance measures in real life settings which have not been used before in this field and shed more light on the needs of a particular

age group (adolescents). The positive findings and the mistakes made in this study will, hopefully, help future researchers in this field and stimulate further work in examination anxiety research.

The study stimulated some thoughts about the effects on the emotional well being and achievement of pupils and their families, in an excessively examination dominated culture. Too many exams and lack of trust in the examination system could well push exam anxiety beyond the optimal level and stifle creativity and real learning of pupils. It is hoped that this study will make a contribution to reverting present government trends away from an excessively exam dominated culture, so that any strategies for the management of extreme examination anxiety become redundant.

It is hoped that this study has contributed to the knowledge base in educational psychology and opened up areas for further investigation, stimulating the suggestions listed below for future research in the field of anxiety management.

6.8 Some suggestions for future research in the field of anxiety management

Important areas for further research which have not been addressed in this study are: working with parents, the effects of school environments on examination anxiety, teaching and learning styles and the effects of the curriculum, in particular the effects of Maths anxiety.

Further research is needed to explore whether teachers trained in cognitive behavioural approaches can successfully deliver the strategies applied in the

study. The examination anxiety concept needs to be further deconstructed in terms of the three main factors identified in this study, namely physiological arousal, cognitive interference and social anxiety. The developmental aspects of examination anxiety also merit further attention, since there appear to be changes from middle childhood to adolescence. The gender effects of examination anxiety have only been touched upon in this study and deserve further investigation in order to inform a gender sensitive pastoral care system.

To conclude, this study has broken new ground by opening up some key elements in an area that pervades many pupils' lives. Above all the study enabled some of the participants to perform more successfully in an examination situation.

Paula Astrid Gregor, January 2003

Chapter 7 - References

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Title: Managing Anxiety – Interventions for Schools

Chapter 8 - Appendices (attached)

Appendix 1 - Ethical Permission from the Joint UCL/UCLH Committees

Appendix 2 - Proforma of informed consent statements: parents and pupils over 16 years

Appendix 3 - Proforma of screening questionnaire – pilot

Appendix 4 - Proforma of Friedben Test Anxiety Scale (FTA) form – adapted version

Appendix 5 - Proforma of qualitative evaluation form teachers (pilot)

Appendix 6 - Proforma of qualitative evaluation form pupils (main study)

Appendix 7 - Some examples of scripts and handouts (main study)

Appendix 7a - Overall objectives of the course

Appendix 7b - Script and handout for introduction and assessment session

Appendix 7c - Script and handouts for relaxation and mixed groups (2 and 1)

Appendix 7d - Script and handouts for CBT and mixed groups (4 and 1)

Appendix 7e - Script for mixed group (1).

Thesis: Managing Anxiety - Interventions
for Schools
Name: Paula Astrid Gregor

Appendix 2a



Headteacher:
A R Silver B.A.

ARS/PP915B

18 January 2001

Dear Parent\Guardian

Project on self-management of examination anxiety

Last year the school was asked to assist in a pilot project carried out by Mrs Astrid Gregor, an Educational Psychologist with Buckinghamshire Educational Psychology Service. The project aimed at developing strategies for schools to help pupils manage everyday stress such as examination anxiety.

Thirty-two Year 11 volunteers participated in the project. Evaluation suggests that the pupils gained considerably in self-confidence and achieved improved examination grades.

This year we propose to extend the project to four whole forms in Year 11. Your son/daughter is part of one of these forms and I hope that you will consent to your child participating in this study. He/she will participate in five sessions, which will be delivered weekly, as part of the normal PSHE timetable from the end of February through to the end of March 2001. At the beginning and the end of the sessions a questionnaire will be given to the participants to evaluate the impact of the project.

If you have any queries about the project, please do not hesitate to contact Mr Redman at the school, or Astrid Gregor, the researcher, for more details. Her telephone number at the Bucks County Council Educational Psychology Service is 01296 382697.

Yours sincerely

A R Silver
Headteacher

Please detach and return to the Form Tutor no later than Thursday 15 February 2001.

✂-----

C o n s e n t F o r m

Name: _____ Form: _____

I consent to my child participating in the project on self-management of examination anxiety.

Signed: _____ Date: _____

Parent/Guardian



Thesis: Managing Anxiety - Interventions
for Schools
Name: Paula Astrid Gregor

18 APR 2001



Appendix 1

The University College London Hospitals
The Joint UCL/UCLH Committees on the Ethics of Human Research

Committee A Chairman: Dr F D Thompson

Please address all correspondence to:

Iwona Nowicka
Research & Development Directorate
UCLH NHS Trust
1st floor, Vezey Strong Wing
112 Hampstead Road, LONDON NW1 2LT
Tel. 020 7380 9579 Fax 020 7380 9937
e-mail: iwona.nowicka@uclh.org

Ms A Gregor
Chartered Educational Psychologist
Education Department
County Hall
Aylesbury
Bucks HP20 1UZ

Tuesday, April 17, 2001

Dear Ms Gregor

Study No: 01/0029 *(Please quote in any correspondence)*
Title: Managing anxiety - Intervention strategies for schools

Thank you very much for your letter addressing the points raised by the ethics committee. There are no further objections on ethical grounds to this study going ahead.

Please note that it is important that you notify the Committee of any adverse events or changes (name of investigator etc) relating to this project. You should also notify the Committee on completion of the project, or indeed if the project is abandoned. **Please remember to quote the above number in any correspondence.**

Yours sincerely

Dr F D Thompson
Chairman

Self – Management Questionnaire

| | |
|-------|-------|
| Name: | Date: |
|-------|-------|

Please tick the box under the word that shows how often each of these things apply to you. There are no right or wrong answers.

| | Never | Some -times | Often | Always |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| I go out on a Friday night | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel satisfied when I have completed my work | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I worry what other people think of me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I participate in class discussions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Stress gives me butterflies in the stomach | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If I make a mistake I start again | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am happy at school | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If I'm stressed my heart rate increases | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I take regular breaks during revision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Thesis: Managing Anxiety - Interventions
for Schools
Name: Astrid Gregor

Appendix 2b

THE GRANGE SCHOOL

Wendover Way
Aylesbury
Bucks. HP21 7NH

Tel: 01296 423905
Fax: 01296 399036

E-mail: office.thegrange@easymail.rmplc.co.uk
Website: www.grange.bucks.sch.uk

Headteacher:
A R Silver B.A.

ARS/PP915B

March 2001

Dear Pupil

Project on self-management of examination anxiety

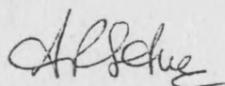
Last year the school took part in a pilot project on examination stress. The project aimed at developing strategies for schools to help pupils manage everyday stress better.

This year we are extending the project to four forms in Year 11 chosen at random. You are in one of the forms selected and I hope that you will agree to take part in this study.

The project involves five sessions, which will be delivered weekly, as part of the normal PSHE timetable.

If you have any questions about the project, please do not hesitate to talk to Mr Redman or your PHSE teacher.

Yours sincerely



A R Silver
Headteacher

Please detach and return to the Form Tutor

✂-----

Name: _____ **Form:** _____

I agree to participate in the project on self-management of examination anxiety.

Signed: _____ **Date:** _____

(pupil's name)



Questionnaire

| | |
|-------|-------|
| Name: | Date: |
|-------|-------|

Please tick the box under the word that shows how often each of these things apply to you. There are no right or wrong answers.

| | Doesn't apply to me | | | Applies to me | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| If I fail an exam I am afraid that my friends will think I am stupid | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If I fail an exam I am afraid people will think I am useless | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If I fail an exam I am afraid my teachers will tell me off | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If I fail an exam I am afraid my teachers will believe I am hopelessly dim | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am very worried about what my teachers will think or do if I fail an exam | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am worried that all my friends will get high marks in the exam and only I will get low marks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am worried that if I fail my exams my parents will not like it | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am worried that failing my exams will humiliate me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| During an exam my thoughts are clear and I neatly answer all the questions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| During an exam I feel in good shape and well organised | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | Never | Some -times | Often | Always |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| I worry about talking in front of the class | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I reward myself if I am successful at school | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I double-check what I know I have done properly | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I compare my results with those who have received a higher mark | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| When I am nervous I feel shaky | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I talk to my friends if I have something on my mind | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I worry if I get bad marks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I plan my work before I start | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I get homesick when away from home | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I concentrate easily on my work | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I revise before an exam | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I would like to take part in the project | | Yes | No | |

Thesis: Managing Anxiety – Interventions for Schools
Name: Paula Astrid Gregor

Appendix 5

Evaluation form

Project on self-management of examination stress

Name of pupil _____

Did you or any of your colleagues notice any changes

in _____ **since the beginning of the project?**

(Nov99): YES/NO

If YES, what changes did you perceive? (i.e in attitude, confidence, motivation, behaviour in class)

Any other comments?

Thank you for completing this form.

Astrid Gregor
Educational Psychologist, May 2000

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7a – Overall objectives of the course

Main study – script – ‘Stressbusters - self-management of examination anxiety’

Overall objectives of the course

- **To raise participants’ awareness of the positive and energising aspects of anxiety**
- **To equip the participants with a variety of strategies to manage their feelings, including problematic examination anxiety.**
- **To share experiences in a group situation**
- **To share the successful strategies with the whole school.**

Outcomes

- **To be able to harness the positive and energising aspects of anxiety in a variety of challenging situations, in particular in an examination situation.**
- **To learn new skills and ways of self-managing stress, in particular problematic anxiety.**
- **To offer mutual support in situations generating anxiety.**
- **To create a climate of openness about expressing feelings.**

5 minutes

4. Icebreakers/warm up activities. (Experimenter in first session, teachers in following sessions)

Intro session: from Brain Gym: 'letters and arm movements'.

(later sessions: in groups: body sculpt a concept (eg friendship or a painting.)

5. Exams and other challenges

Activity: Talk to your neighbour in turn about:

An exam from HELL: worst possible scenario

A DREAM exam:

What made the difference? Write main points down on paper and share with class. Teacher or volunteer pupils record on flip chart/board.

Volunteers: discussion/role play:

How would a pupil who is anxious about exams behave?

What would he/she think/do/say?

How would a pupil who is confident about exams behave?

What would he/she think/do/say?

Tell them what the group of 2000 said.

5 minutes

6. Feelings - what are they for? Ask class and discuss with them

They are an important part of human existence. Feelings are guides to survival and help us act.

Positive feelings: love, happiness,

Negative feelings: anger, anxiety.

They all have a purpose provided they are not over the top. Too much of anything good can be a bad thing: discuss. e.g. love and overprotection.

5 minutes

7. Stress (term comes from engineering)

Introduce handout 1 – Effects of stress.

(Suggest they get a folder to keep the handouts in and to bring them along to the following sessions).

If too much: painful, if too little: can be harmful. Give example: anxiety

makes us act: rabbit seeing a snake: 'Fright, fight, flight response: and self-preservation. The right level of stress leads to peak performance.

Anxiety is a normal and useful emotion. This is what this project is trying to help you to achieve: to harness and to control your feelings to help you to do even better.

10 minutes

Introduce handout 2 – QUIZ: script from Surrey EPS examination anxiety pack. How well are you preventing and managing your own stress?

Not competitive. Just for you. Complete sections 1 to 3 on page 1 now, in class, on your own. Finish off at home. Score, using scoring sheet (handout 3). We'll see if the project will help to improve your scores.

Thesis: Managing Anxiety – Interventions for Schools
Name: Paula Astrid Gregor

Appendix 7b

Main study – script – ‘Stressbusters – self-management of examination anxiety’

Session 1 – Introduction and assessment session

This session is the same for all three forms.

Programme of session 1

45 minutes, in the PHSE lesson slot.

Objectives

- To set the scene and to develop trust and a setting where the participants feel safe;
- To establish ground rules;
- To set short and long-term goals (how to realise a dream);
- To have fun.

10 minutes for introductions and groundrules

1.Introduction: the teachers introduce the experimenter/EP and the project: The title of the project, ‘ Stressbusters’, was chosen by the School.

2.Introduction by the experimenter/EP

What are we here for?

Short term? Long term?

What do we hope to get out of it? (script):

‘ Hi everyone!’

As your teacher explained to you, you are one of the forms chosen to participate in a project on self-managing stress. We will be trying out strategies to find better ways of dealing with challenging situations such as exams, taking a driving test, playing a match or speaking in front of a large group. The main purpose is that you learn new skills and you practice these and apply them in your lives.

Thank you for helping us with this. We ran this project last year and most of the participants gained from the experience: they did well in their exams and they also had some fun. This year the project involves more pupils and with your help and interest we hope to make it a success. The project is for you. Last years’ pupils found that they got as much out of it as they put in. Please keep an open mind and take from the lessons what is right for you. If you find some bits boring or embarrassing, please bear with us. Together we hope to develop exciting new things, which we will share with the whole school later and where you were the pioneers. So, thanks very much again’.

3.Establishing ground rules (teachers to introduce) (put on poster or whiteboard beforehand).

What we do and say in the group is confidential.

What we do and say in the class is valued.

We listen to each other and we support each other.

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7b

Hand-out for all groups (introduction and assessment session – Session 1)

Stressbusters – The physiology of stress

What happens to your body if you are stressed or anxious?

Hans Selye first described the stress response in the 1950ies, and recognised its dual nature. In the short term, it produces active changes that help us respond to the stressor; in the long term, however, it produces changes that are maladaptive.

When the body is exposed to harm or threat, the result is a cluster of physiological changes that is generally referred to as the 'stress response'. All stressors, whether psychological (i.e. dismay at the loss of one's job) or physical (i.e. long-term exposure to cold) produce a similar core pattern of changes in the body.

The magnitude of the stress response depends not only on the source of the stress and the individual. It depends on the strategies that the individual adopts to cope with the stress. For this reason it is important to learn strategies and skills to control and manage our own stress.

There are physical ways of controlling stress, such as exercise or learning to relax by breathing and there are mental ways of controlling stress, learning to influence your body and your feelings with your mind.

During the next four sessions the groups will try out various ways to self-manage stress and with your help we will investigate which strategies are the most useful.

If we see situations as a threat, there are changes in our body due to the 'fright - fight - flight response'. When the situation is evaluated as threat, the oldest part of the brain, the limbic system, becomes activated and the body then produces stress hormones. These hormones circulate through the bloodstream, reaching every part of the body. In the short term this produces adaptive changes in response to the stressor. If the conflict is resolved, the body returns to normal. If not, and there is prolonged or chronic stress, this can be damaging to our health.

The changes in the body prepare an animal or a person either to fight or to run.

Some of the symptoms may be as follows:

Sweating palms – the purpose of this is cooling if you need to run

Heart rate goes up

Blood pressure increases to pump more blood round the body.

You may have butterflies in the stomach – digestion stops and blood is carried away from the stomach to other parts of the body (to the muscles, particularly arms and legs)

Pupils dilate so that you can see better

8. So, what can you do to reduce stress to the right level?

Introduce handout 4: 'Reducing susceptibility to stress'

To think about at home and to discuss with friends, if they want.

What did the group of 2000 find?: Introduce handout 5.

STRESSBUSTERS: So, what can you do?

You can:

- **Accept who you are**
- **Look after yourself**
- **Talk about it – remember the elephant and the mouse! 'Spit it out!'**
- **Look after other people – support each other**
- **Learn new skills – relaxation and self-management skills**
- **Keep in touch with friends – share feelings and experiences**
- **Do something creative**
- **Get involved – focus outwards and on other people**
- **Ask for help**
- **Relax! That's what we are about! Practice it!**
- **Laugh at yourself**
- **Find your own ways of chilling out.**
- **Survive – or thrive?**

Home practice: (stress importance of practice) – up to them.

1. Complete rest of questionnaire

Give them hand-out 6 (second part of questionnaire to take home and to score- pick up findings at the beginning to session 2).

2. Think about and list three things that help you chill out. Think about that for next session. Brief groups: each group trying out a different strategy in next four sessions.

Handout 7: Blank sheet with title: 'How do I chill out?'

NB.

(Teachers and EP to look out for vulnerable pupils and any reactions – refer through a different route - monitor through pastoral care and/or school's link EP, if necessary.)

NNB.

This programme is fairly tightly packed and parts of it can be used flexibly (i.e. exam from hell can be left out), depending on the response of the pupils.

Time-lines are approximate.

One set of hand-outs for each teacher and each pupil.

Paula Astrid Gregor

25.2.01

Materials adapted from the following references:

Hinton, S. & Norton B. (2000) Surrey Educational Psychology Service.

Managing Examination Stress. A Workshop for Students and their Parents.

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7c

Main study – script - 'Stressbusters – self-management of examination anxiety' – Session 2: Group 2 (Relaxation) and Session 2 for Group 1 (Mixed)

Objectives

- To learn a variety of relaxation techniques to deal with anxiety in a positive way
- To learn to become aware of body and breathing
- To learn to recognise tension and to be able to relax in as many situations as possible

The physiology of emotions – anxiety. If possible measure heart rate. (Hand-out 2 'Stressbusters – What happens to the body if we are stressed and anxious')

Short introduction

Why is relaxation good for you? (hand-out 1)

What happens to your body?

Relaxation = balance between body and mind (Yoga).

Stress:origins of word. Engineering.

1. Sitting – relaxed postures

Head

Motionless and straight, nose in line with midline (buttons)

Eyes

Eyelids lightly closed, no motion of eyes.

Mouth

Lips slightly parted.

Throat

No movement

Shoulders

Down and rounded

Body

Torso, hips and legs are symmetrical. no movement.

Hands

Palms down, fingers slightly curls

Feet

Pointed away from each other.

Concentration is heightened
Muscles tense in preparation for action
Breathing becomes faster (you need more oxygen)
Bowel movements may become loose, so that the weight carried out becomes reduced.

These are just some of the perfectly normal responses and it helps to understand what happens to your body in times of stress. If you are able to act, i.e. run away, your body will return to normal after a while. If you are stuck in an interview or exam situation however, you cannot just get up and go or start a fight to relieve tension.

For this reason you need to develop other ways of reducing the stress responses to your body, or to use the responses in a positive way.

References

Pinel, J. (2000). Biopsychology. 4th Edition. Boston: Allyn & Bacon.

Use music for some relaxation exercises

Zen breathing

Alternatively tense-relax tense let go. toes upwards. Don't forget to keep breathing. go limp.grow heavy. turn to jelly. Heaviness. warmth spreads through your body.

Wave breathing. sand out through toes image.

Visualisation

Imagine – Walking down a flight of steps to a beach like the one on the picture: sandy beach on a warm summer's day

Count 1.....10.

Standing you the beach feel the sand between your toes. smell the sea. Feel the sun on your skin. lizard. herbs. beautiful red flowers with a sweet scent. Look out at the waves. Settle down and stretch on your towel.

Watch the clouds. feel towel. sun on your body. listen to the waves. They making a shsh sound. seagulls. children playing lie in the warmth and breeze touching your skin.

1 minute break.

cool, cloud. stretch, become aware of surroundings. sit up, get up slowly, wriggle, shrug, move, move your head around, take a deep breath, your body feels alive. walk back 1 – 10. energy. feel relaxed and refreshes. ready to go.

Quick relaxation

Hunch up shoulders. drop

Feel tension draining down your arms and wrists and out through your fingers like sand. let arms go limp.

Now concentrate on breathing. slowly and evenly. in and out, in and out.

feel the gentle expansion of your chest as air goes in and out. get back to what you are doing.

Practice.

Visualisation

The secret garden ask re asthma,

the sunny pool

your favourite place

Mountain top.

Positive thinking weeding out negative thoughts.

quiet place.

imagine walking out from a dark room into a sunny garden. notice the weeds. get down on your hands and knees and dig out those weeds. Imagine each weed is in the way of your success.

Breathing is quiet.

Breathing

Explain shape of lungs – demonstrate breathing. diaphragm. ball in and out.

1. Stand

Arms up – lower slowly. arms over head. exhale quickly, bend over and dangle. like puppet.

2. Sit – cross legged or posture of choice. Close eyes. relaxes the face.

3. Practice 5 full lung breaths – breathing in for four, holding for four, breathing out for four.

4. Lying down – palms up, feet outwards. chin down. body against floor

Take a deep breath. Feel peaceful.

You feel calm, good, at ease.

5. Now become aware of your body.

**Name: Right side. big toe, 2nd toe, 3rd toe, 4th toe little toe
sole, of foot. top, ankle, calf, knee, thigh, buttocks. hips,
pelvis, stomach, waist, chest, ribs shoulder blades at back.
Left as above**

Right thumb. 1st finger....little finger

**palm, back of hand, wrist, elbow, upper arm, shoulder, neck, throat,
lips, teeth, tongue, nose, cheeks, ears, scalp.**

Left thumb....as above.

Now become aware of the right, left side of your body, whole body

Feel how heavy your body is, sinking in the floor.

Light – almost weightless.

Now breathe out slowly, steadily.

break.

tensions washing out from every part of your body.

As you breathe in, draw in health and strength.

As you breathe out, release tensions.

Whole body feels calm. Now make a positive statement to yourself:

I feel good. I feel calm.

**now become aware again of your body, imagine the room around you
and feel the contact between your body and the floor. Take a few
deep breaths in your diaphragm, begin to move your fingers and
toes, now stretch, if you feel like it. Roll over on to your side and in
your own time come into sitting position and then open your eyes.
How did that feel?**

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7c

**Main study and pilot study – ‘Stressbusters’ – Scripts and hand-outs
‘Relaxation - stretching out’ and ‘relaxation in a chair’ for relaxation and
mixed group.**

‘Stretch out on a soft mat in a comfortable and warm place. Check that you are in the ‘relaxation’ position, your whole body flat and in contact with the floor. Chin down, shoulders, and backs of hands on the floor. Feet dropping outwards. Breathe rhythmically and evenly ; in – out, in – out.....

Become aware of the parts of your body and name them:

First the right side of your body: right big toe, second toe, third toe, fourth toe, little toe, the sole of your foot, the top of your foot, your ankle, calve, knee, thigh, buttocks. Now become aware of your whole right leg. It is getting warm and it feels good.

Now think of your left leg: your left big toe, second toe, third toe, fourth toe, little toe, sole of your left foot, top of your foot, ankle, calve, knee, thigh, buttocks – your left leg feels warm and comfortable.

Now think of your right arm and hand: your little finger, second finger, third finger, fourth finger, thumb, palm of your right hand, back of your hand, wrist, forearm, elbow, upper arm and shoulder. Now your whole right arm feels warm and comfortable.

Now become aware of the rest of your body and work your way upwards, thinking about your buttocks, your hips, pelvis, stomach, waist, chest, ribs, shoulder blades. You are flat and your body is sinking in the floor. Keep breathing evenly..

Think about your neck and throat, chin and lips, teeth and tongue, nose, cheeks, eyes, forehead, ears and scalp. ..

And now become aware of your whole body. It feels warm and heavy and you are sinking into the floor..

As you breathe in, you breathe in energy and light and draw in health and strength. As you breathe out, you release all your tensions and worries.. Your whole body feels good, you feel good. Now think: I can do anything I want to do. Now decide to do something that you have found challenging or scary before. Go away and do it.

Now become aware again of your body, the room around you, the noises, the other people in the room and the position of your body as you lie down. Feel the contact between the body and floor. Take a few

Root out weeds.

some come out easily, others are more deep rooted – pull harder

Pull out – I can't do it

I am no good

I can't remember

Move round the garden pulling out those weeds

Pull out dandelions, bindweeds,

plant new shoots I CAN DO

I KNOW

I CAN REMEMBER

plant new seedlings and recognise your strengths and abilities.

stand back and admire your garden.

New found confidence. Imagine that garden in full bloom in the summer.

This is your future. When you go back, the room is sunny.

Take a deep breath, stretch and feel relaxed and confident to face the situation that challenges you.

Private garden and other favourite places

Materials adapted from the following references:

Hinton, S. & Norton, B. (2000) Managing Examination Stress. A Workshop for Students and their Parents. Surrey Educational Psychology Service. (adaptation of handout, Quiz and relaxation audiotape 'Time for Calm').

Poppen, R. (1998). Behavioural Relaxation Training and Assessment. London: Sage.

McNamara, S. (2001). Stress Management Programme for Secondary School Students. London and NY: Routledge.

Schmitz, C.C. & Hipp, E. (1995). Revised and Updated Fighting Invisible Tigers. Minneapolis: Free Spirit Publishing, Inc.

Astrid Gregor Feb 2001

Main study and pilot study – ‘Stressbusters’ – Relaxation in a chair.
Script and hand-out for the relaxation and mixed groups.

‘ Imagine you are sitting in the woods, on a soft, mossy patch, leaning against a tree. Your body fits in the shape of the tree like in a comfortable armchair. You settle down and feel at peace, breathing evenly. The sun filters through the leaves and you can feel its warmth on your face. You can smell the moss and the scent of the bluebells and you can hear the birds overhead in the tree. A bee lazily hums, flying by. You look out over a lake and you can see a boat with brown, chipped paint, in the distance, gently rocking with the waves. You can hear the splashing of the waves against the grassy lakeshore. On your right, at the edge of the lake, by a small stream, you can see a mill with an old wheel turning. You watch the wheel go round and round.... You close your eyes and you fall asleep....

Relaxation of 5 – 10 minutes with gentle music

A small black beetle crawls over your hand and wakes you. You feel good. You yawn and stretch, get up in your own time and walk home, ready for any challenges of the day. ‘

Scripts adapted from Tessa Lomas, Yoga teacher, Suzie Iyadurai, Educational Psychologist, and the relaxation tape produced by Sonia Hinton, Surrey Educational Psychology Service.(Examination anxiety pack).

**Astrid Gregor
March 2000**

breaths, wriggle and stretch, begin to move your fingers and toes. Roll over on to you side, and in your own time come up to a sitting position and then open your eyes and slowly get up. If you feel drowsy and you need to feel awake, stretch, take deep breaths and jog on the spot for several minutes.

If you want to continue your relaxation, walk down to 'your beach'.

Relaxation techniques – script 5: 'the beach'

Walk down some stone steps, warm from the sun, leading down to your favourite beach: one, two, three, four, five, six, seven, eight, nine, ten. It is a beautifully hot day and you can feel the sun on your face and smell the salty sea. You step in the warm sand and you take off your sandals and feel the sand between your toes. You walk to your usual spot on the beach, by the rock, and spread out your blue, fluffy towel and settle yourself comfortably in the warm sand. You stretch out on your back and look at the blue sky. High up you can see a seagull and far away you can hear a boat. Before long your eyes are closing and you breathe evenly and peacefully. Your surroundings disappear and you become aware of how good you feel.

You imagine you are a beach and as you breathe in, the waves of the sea are rolling up your body, over your toes, legs, knees, tummy, reaching a crest over your chest and as you breathe out, the waves are washing down your body again, taking away all the tensions and smoothing out the beach. You feel light and warm and good. You feel at peace and fall asleep. '

Build in at least ten minutes relaxation here, with soft music playing in the background.

'A cloud is covering the sun and suddenly your face feels cool. You wake up, take a few breaths and wriggle and stretch. In your own time you get up, pick up your towel and walk back up the steps: one, two, three, four, five, six, seven, eight, nine, ten. You feel refreshed and full of energy and you go on to other things some of them fun.'

May involve all senses and home practice. Combinations.

- **Motoric relaxation: relaxed, balances postures. In a chair. Lying down. Progressive muscle relaxation: tensing/relaxing and labelling body parts. Zen method. If breathing alone does not help, tensing up more before relaxing may be the only way to relax!**
- **Visceral relaxation: deep breathing exercises affecting heart rate. During relaxation oxygen consumption decreases by 13%, CO2 production decreases by 12% and eleven to sixteen fewer breaths are taken per minute (Benson, 1960). Full lung breathing. Wave breathing.**
- **Cue controlled relaxation**
Repeating calming words: I feel calm. Penguin(cool). I can do this. I feel good. Focussing on body parts or on neutral stimuli to shut out other stimuli. (i.e. pattern in wallpaper).
 - **Guided imagery. Visualisation.**
Involve all senses: sound/music. Touch/soft objects.Stroking a pet. Smell: lavender (aromatherapy). Sitting by a tree in the woods. Lying on the beach.
Favourite place. Secret garden. Make up your own pictures.

Relaxation is a self-management approach. The relaxation response is brought under voluntary control. The purpose of training and practice is to provide a person with effective means for coping with anxiety and challenge by relaxation training. This will enable them, in the future, to:

- **Discriminate anxiety cues: recognise anxiety in their bodies.**
- **Train deep muscle relaxation**
- **Apply relaxation in real situations (e.g. driving test, football match, exam public speaking) or any situations they find challenging.**
- **Practice sequence and application of relaxation.**

**Relaxation techniques must be learned and practised. A person who has practiced relax can get to a relaxed state faster (short cut). They induce physiological changes
Involve a neutral focus of attention rather than thinking (worrying).**

Homework: practice your favourite method of relaxation and record on sheet.

**Astrid Gregor
Feb 2001**

References as for previous relax and mixed sessions

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7c

Main study – script – ‘Stressbusters – self – management of examination anxiety’ Session 3 for Group 2 (relaxation) and Session 3 for Group 1 (Mixed)

Introduction

How did they get on?

Homework sheets: did they practice? – was the relaxation useful? For them? In which situations?

Use relaxation music

Recap from previous session – what does relaxation do for you? ‘horses for courses’

Design QUIZ – TRUE/FALSE

Handout

Regular relaxation: lowers blood pressure

Heart rate

Affects body waste products

Brain waves

More noradrenaline required to cause a rise in blood pressure and heart rate in people who relax regularly (Benson)

BUT

Depends on individual differences and activities (eg sports people often have a lower low heart rate).

Find out what works best for you.

Relaxation tools:

Physical/Mental:

Meditation: body relaxed, attention focussed on neutral object or sound (chanting)

Zen: practice of re-adjustment of nervous activity, i.e. it restores the distorted nervous system to its normal functioning.

Relaxation training:

Modifies emotional reactions of test anxious pupils during exams. Decreases autonomic arousal level.

Relaxation techniques

Automatic, faulty thoughts are due to errors in thinking:

1. Concluding from one event to another, when it is not justified:

Example: I lost the match – I will fail my exam.

2. Drawing conclusions without enough information:

Example: All pupils at School are bad at geography because one is.

3. Selecting one bad event:

Example: I am no good at maths because one piece of homework was marked 'poor' ignoring that the three pieces of homework done before were marked 'good'.

4. Exaggeration:

Example: If I am not brilliant at sports, I must be rubbish.

5. Personalisation:

Example: I am stupid! – a tendency to assume negative responsibility for an event when there is no basis for doing so.

The way we think can turn a neutral event into a threat. If we do not know the cause for something (i.e. a noise in the night), we get anxious. One we know what the noise was (i.e. the cat coming in through the catflap and not a burglar, we are back in control).

For this reason we have to catch the automatic thoughts and counter them.

(handout on automatic thoughts).

One way of doing this is positive self-talk. The most important resource is our self. By positive self-talk we can catch negative messages such as internal put-downs (I am stupid!) by looking for evidence that they are not true. Try and work out what is behind a feeling. (i.e. that hurt underlies anger). Or feeling tense and guilty when watching TV when your are supposed to do homework.

If time, introduce pupils to the thought record (handout)

Situation – mood (What was going through your mind?)

List some faulty/hot thoughts at home until next session:

Trouble shooting guide:

Have I described a specific situation?

Did I accurately identify my moods?

What is the balanced thought contradicting the hot thought?

Is this balanced thought believable to me?

(i.e. racing heart does not necessarily mean a heart attack, but vigorous exercise or high anxiety. We attach different meanings to heart beat. i.e. catastrophising).

Next session we are going to talk about problem solving – strategies to test out thoughts and to apply when we cannot change a situation.

What can you say to yourself when you face a stressful situation?

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7d

Main study – script – ‘Stressbusters – self-management of examination anxiety’, Session 2 CBT group and Session 4 Mixed group

Objectives:

- To learn about cognitive behavioural approaches
- To understand how the mind can influence moods and the stress a person feels
- To learn to recognise faulty, unhelpful, negative thoughts and to find evidence for more balanced, useful and positive thoughts
- To learn to reach goals by more than one route.

Programme

Recap from introduction session. (quiz answers).

Reminder of ground rules.

Input on the Physiology of stress (handout)

Link to heart rate.

One useful definition of stress: ‘A person suffers stress if they feel they have more demands placed on them than they can cope with’. The demands can come from without or from within.

In this group we are going to try out some ways of reducing demands from within ourselves by learning to control our thinking and by exploring the power of positive thinking.

One such method is a cognitive behavioural strategy, developed from cognitive behavioural therapy (CBT). This strategy is trying to understand

how our thoughts influence our behaviour and feelings.

Our beliefs influence the way we see things:

Activity

Handout: referee: The way we think can turn a neutral event into a success or a threat: ‘invent a caption’. What is going through the mind of the people in the stand? Discuss with the person next to you.

Handout 3: Thinking/behaviour/emotion.

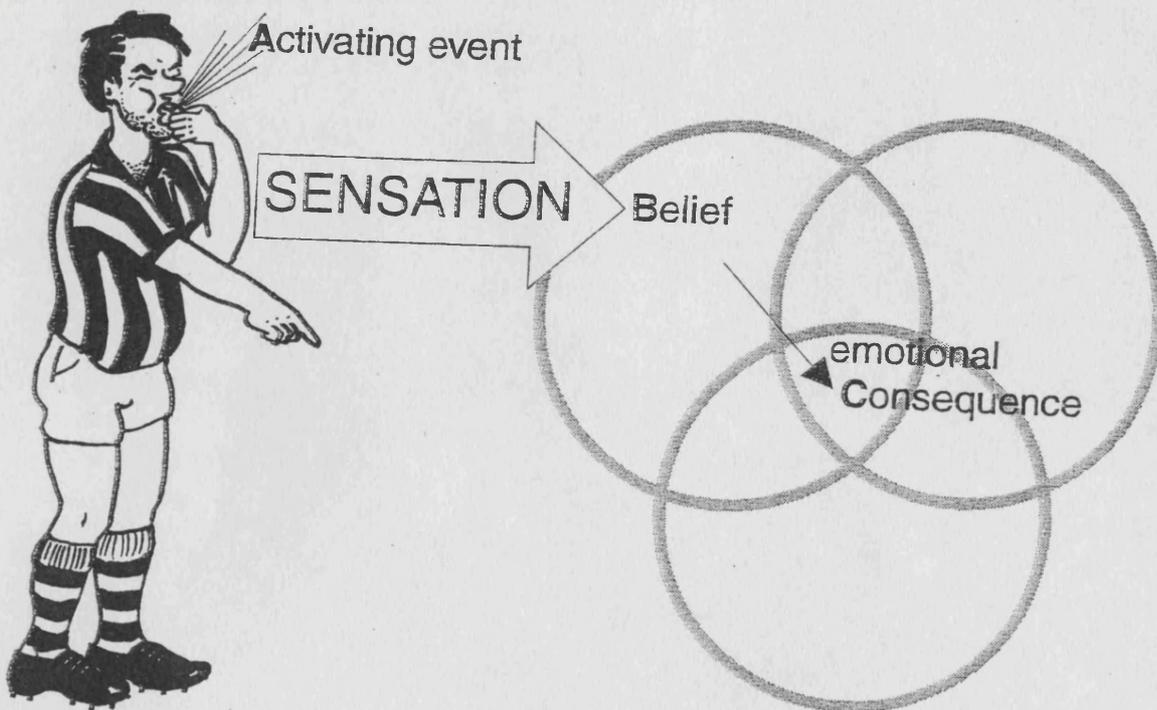
Discuss

Sometimes we think negative thoughts such as ‘I am stupid’, I always fail in maths’, I won’t have anything interesting to say at the party.

Nobody likes me.

Activity: ‘Counter cards: ‘Write a negative, faulty thought on one side of your card. Ask the person next to you or your friend to challenge this thought and to write things proving that this thought is not true or exaggerated on the other side of your card.

REFEREE WHISTLING



('Referee' by V. Parslow-Stafford)

Materials for the CBT sessions were adapted from the following references:

Beck, A.T. (1976). Cognitive Therapy and the Emotional Disorders. London: Penguin Books.

Free, M.L., (1999). Cognitive Therapy in Groups. Chichester: Wiley.

Greenberger, D. & Padesky, C. (1995). Mind over Mood. London: The Guilford Press.

McNamara, S. (2001). Stress Management Programme for Secondary School Students. London and NY: Routledge.

Ellis, A. & Geiger, R. (Eds). (1977). Handbook of Rational-Emotive Therapy (Vol 1), New York: Springer.

Astrid Gregor March 2001

These are just some of the perfectly normal responses and it helps to understand what happens to the body in times of stress. You know what is going on and you can get on with the task in hand without worrying. In our modern lives we are seldom able to act by running away in a stress situation. If we are stuck in an interview or exam situation, we can not just get up and walk out and go or start a fight to relieve tension and we may be at a loss about what to do with all this physical energy. We can however, use the positive aspects of the changes to our body and mind which allow us to be sharper and to deal with situations more successfully. For this reason we need to develop ways of reducing the stress responses in our body, or to use the responses in a positive way, i.e. concentrate better and think better in an exam.

The magnitude of the stress response depends not only on the source of the stress and the individual. It depends on the strategies that each person adopts to cope with the stress, i.e. a positive attitude to things is helpful. For this reason it is important to learn new strategies and skills to do this.

There are physical ways of controlling stress, such as exercise or learning to relax by breathing and there are mental ways of controlling stress, such as learning to influence our body and feelings with our mind, or a combination of both. Every person has his or her individual way of coping and hopefully, you will develop your own way to chill out. During the next four sessions the different groups will try out various ways to self-manage stress and, with your help, we will investigate which of them you find most useful.

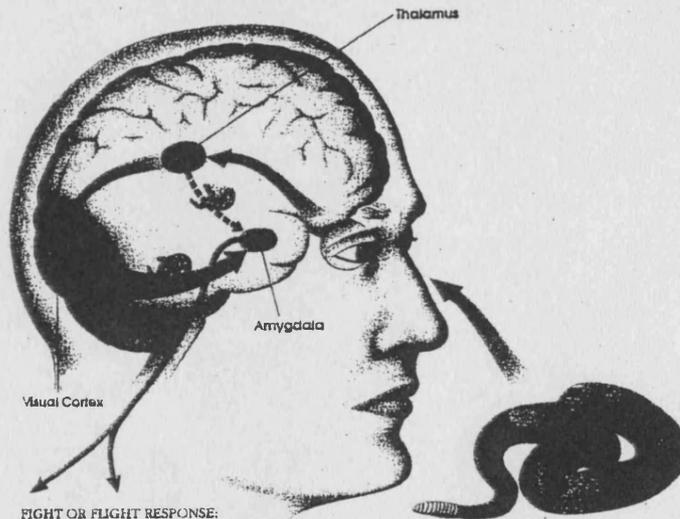
Astrid Gregor, 2.3.01

Reference:

Goleman, D. (1996). Emotional Intelligence. London: Bloomsbury.

Stressbusters – What happens to the body if we are stressed or anxious

If we see situations as a threat or as a challenge, there are changes in our body due to the 'fright - fight - flight response'. When the situation is evaluated as a threat, the oldest part of the brain, the limbic system, becomes activated and the body then produces stress hormones.



How the brain reacts to a threatening stimulus

These hormones circulate through the bloodstream, reaching every part of the body. In the short term this produces adaptive changes in response to the stressful situation and helps us to rise to the challenge. If the conflict is resolved, the body returns to normal. If not, and there is prolonged or chronic stress, this can be damaging to our health.

We have inherited this system and it still exists in us and other animals. The changes in the body have survival value from our past, because they prepare an animal or a person either to fight or to run. They are positive, if they protect a mouse, for instance, from being eaten by a cat, by running away.

Some of the symptoms may be as follows and may sound familiar:

- Sweating palms – the purpose of this is cooling if you need to run
- Heart rate goes up and heart beats faster
- Blood pressure increases to pump more blood round the body.
- You may have butterflies in the stomach – digestion stops and blood is carried away from the stomach to other parts of the body (to the muscles, particularly arms and legs)
- Pupils dilate so that you can see better
- Concentration is heightened
- Muscles tense in preparation for action
- Breathing becomes faster (you need more oxygen)
- Bowel movements may become loose, so that the weight carried around becomes reduced, if you need to run or fight.

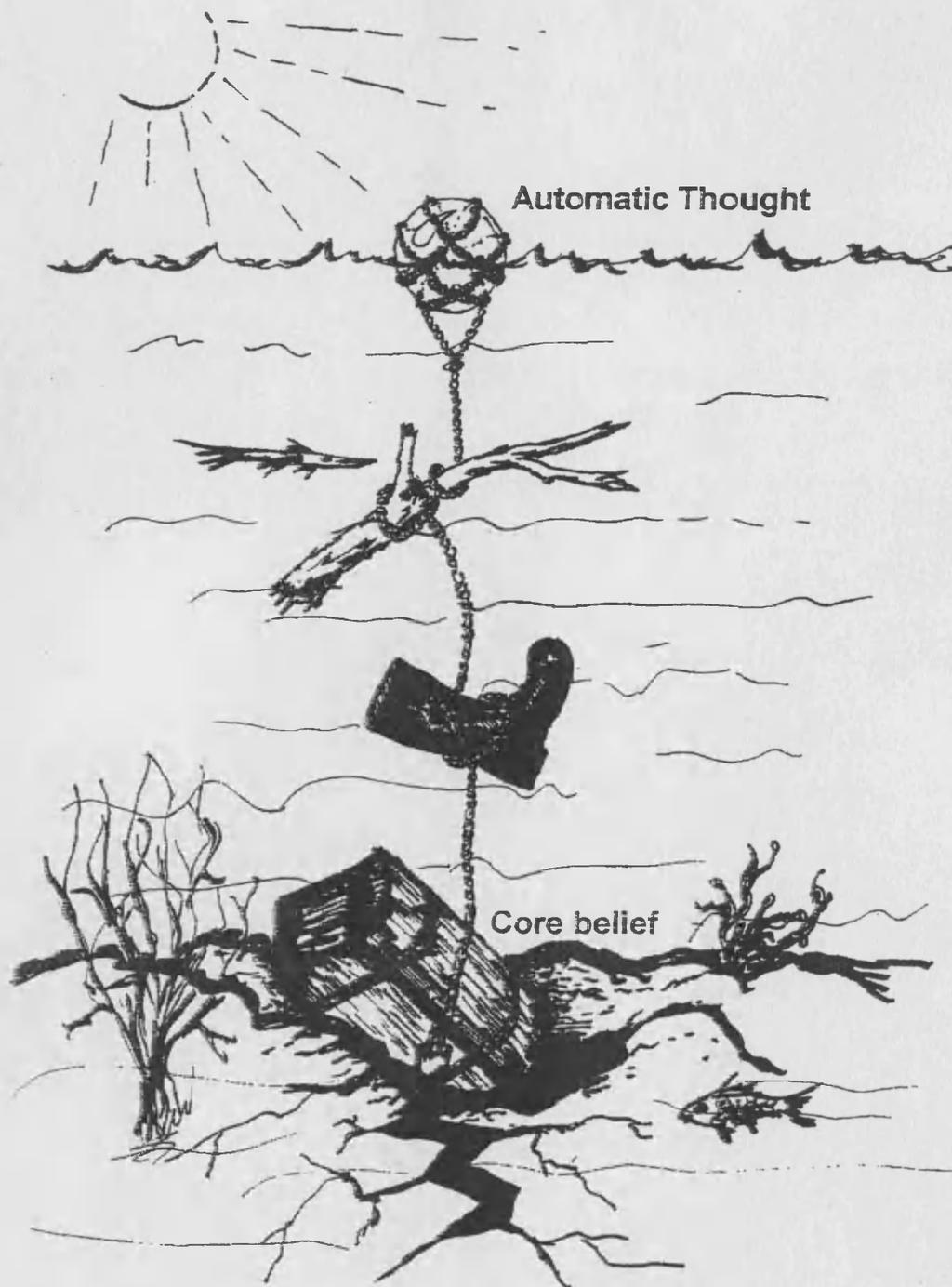
AUTOMATIC THOUGHTS (1)

Characteristics of Automatic Thoughts

- They are short and specific.
- They occur extremely rapidly, immediately after the event.
- They do not occur in sentences, but may consist of a few key words or images.
- They do not arise from careful thought.
- They do not occur in a logical series of steps such as in problem solving.
- They seem to happen just by reflex.

Adapted from Beck et al. (1979)

THE OCEAN ANOLOGY



'Ocean Analogy' by V. Parslow-Stafford)

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7d

Main study – script – ‘Stressbusters – self-management of examination anxiety’ Session 3 for the cognitive-behavioural (CBT) group and adapted for Session 5 for the mixed group

Aims

- to consolidate things learned in previous sessions
- to understand the effects of relationships on stress levels
- to think about support from and for others

Re-cap: Faulty thoughts – how did they get on?

Thinking can help you look at all the information available. It is not just positive thinking, it is rethinking.

Many problems require more than a change in thinking – they require changes in what we do (our behaviour) and in our environment through problemsolving. We can cope through running away or we can cope by approaching things and people and dealing with them. Remember the positive self-talk: go and do!

Handout: The worry solution

Handout: action plan and goalsetting

If time, do mindmap.

Last time we talked about stresses from within and how to cope with them. Today we are going to think about stresses from without and solutions for them.

People stresses and people power

Relationships

Although we may find relationships difficult at times, particularly young people with grown-ups and parents, they are probably our most valuable source of coping with stress. Young people rely more and more on people their own age. For this reason friendships are more and more important. (Mention work with EBD children and importance of having one friend!)

Activity: ‘In your own mind think about five people who cause you the most stress or hassle. Now think about five people who you turn to if you are down or feel stressed. Raise your hand, if there are at least two people in each category.’

Was there a friend among the supportive ones?

Friendships

The foundation of friendship is trust.

What is a true friend? Ask them for one thing each.

Last year’s group said:

Characteristics of Automatic Thoughts (2)

- You do not summon them up, and you can't send them away.
- They seem reasonable at the time.
- Often a person will have automatic thoughts with the same theme.
- People with the same emotional problem have the same kind of automatic thoughts.
- Automatic thoughts involve more distortion of reality than other types of thinking.

Adapted from Beck et al. (1979)

**Main study – ‘Stressbusters – self-management of examination anxiety’
– script Session 4 CBT group and adapted to mixed group.**

Aims

- To consolidate learning about ‘mind over mood’;
- To learn about goal setting and problem solving;

Programme

Recap ‘faulty thoughts’ and find evidence for positive thoughts

Example: hand-out footballer recap

Complete thought record

Positive self-talk recap.

Consider stress from within

Stress from without: other people

How to be assertive; poster

Discussion: what does it mean to be assertive?

Goalsetting: handout. What is your goal? How are you going to get there?

Taking control of your learning and performance

Look after yourself

Look after other people

Make a plan.

**Sources: Stress management programme by S. McNamara
Fighting invisible tigers by Schmitz and Hipp.**

'honest, cares about you, shares, is reliable and fun, has things in common. Accepts you as you are.'

We cannot change out parents or brothers and sisters, but we can change the way we react to them. Remember the fright-fight-flight response. We can either run away from problems (i.e. sitting at home and not going out or to a party, because we are afraid we might meet a person we do not like). Or we can be confrontational and aggressive, or we can break these habits and take control of what happens in a relationship. We can change out behaviour towards someone who is causing us hassle and see whether it makes a difference. For instance, if we normally walk away from a person, we can listen more attentively to what they are saying.

Occasionally spending time alone can be relaxing. On the other hand research shows that talking to people about you feel can help you to feel better (remember: elephant and mouse: spit it out!).

Handout: How to let others help if you are feeling stressed.

High self esteem list: use for the script.

Focus on the task you have to do – you may have practised answering these questions many times before. The task is only a threat, if you perceive it as one.

**Overview of 5 sessions
Name one thing you found useful
Evaluation sheets
Certificates.**

Astrid Gregor, March 2001

Main study – Stressbusters – script for CBT group – session 5 and Mixed group – session 5.

Aim

- To recap things learnt in the first four sessions
- To apply them to exam skills

Script:

1. Recap: 'Negatives are developed in the darkroom!'

Goal-setting and problem solving.

A different way of doing this is mindmapping: do a collective mindmap on board.

2. Taking control of your learning – improve your exam preparation skills. Handout: exam tips.

Studying and homework

Revising for exams is a challenging time. Hopefully this session will provide you with strategies to improve your revision routines and increase your confidence about taking exams.

Activity: Discussion:

What are the main problems regarding homework, revision and keeping up with coursework?

What is the hardest part of studying for you?

Record on board by mindmap.

Refer to quiz and include:

Look after yourself – physical fitness

Look after other people. Recap of session 4.

Tips on time management (handout)

How do you concentrate best?

Think about where you revise or do your homework. Are you flaked out on your bed, with your stereo blaring, books and papers scattered around you? Are you trying not to spill your coke as you look for the pen that got away? Then you may find it difficult to concentrate!

Organise your room and your table.

Revise in the same place every day.

Remove distractions

Have good lighting and ventilation.

Clear your work surface of clutter.

Put things where you can find them at the end of the revision.

Study with friends.

Just before the exam

Remember the positive self-talk: I am going to have a go at this. Beware faulty thoughts.

Automatic, faulty thoughts are due to errors in thinking:

1. Concluding from one event to another, when it is not justified:

Example: I lost the match – I will fail my exam.

2. Drawing conclusions without enough information:

Example: All pupils at School are bad at geography because one is.

3. Selecting one bad event:

Example: I am no good at maths because one piece of homework was marked 'poor' ignoring that the three pieces of homework done before were marked 'good'.

4. Exaggeration:

Example: If I am not brilliant at sports, I must be rubbish.

5. Personalisation:

Example: I am stupid! – a tendency to assume negative responsibility for an event when there is no basis for doings so.

The way we think can turn a neutral event into a threat. If we do not know the cause for something (i.e. a noise in the night), we get anxious. One we know what the noise was (i.e. the cat coming in through the catflap and not a burglar, we are back in control.

For this reason we have to catch the automatic thoughts and counter them.

(handout on automatic thoughts).

One way of doing this is positive self-talk. The most important resource is our self. By positive self-talk we can catch negative messages such as internal put-downs (I am stupid!) by looking for evidence that they are not true. Try and work out what is behind a feeling. (i.e. that hurt underlies anger). Or feeling tense and guilty when watching TV when your are supposed to do homework.

If time, introduce pupils to the thought record (handout)

Situation – mood (What was going through your mind?)

List some faulty/hot thoughts at home until next session:

(Trouble shooting guide:

Have I described a specific situation?

Did I accurately identify my moods?

What is the balanced thought contradicting the hot thought?

Is this balanced thought believable to me?

(i.e. racing heart does not necessarily mean a heart attack, but vigorous exercise or high anxiety. We attach different meanings to heart beat. i.e. catastrophising).

Handouts and references as for CBT and relaxation sessions (extracts).

Astrid Gregor, March 2001

Thesis: Managing Anxiety – Interventions for Schools

Name: Paula Astrid Gregor

Appendix 7e

Main study – script – ‘Stressbusters – self-management of examination anxiety’ - Mixed group – CBT group sessions adapted to sessions 4 and 5 of the mixed group

Objectives of the next two sessions:

- To learn about cognitive behavioural methods
- To understand how the mind can influence moods and the stress a person feels
- To learn to recognise faulty, unhelpful, negative thoughts and to find evidence for more balanced, useful and positive thoughts
- To learn to reach goals by more than one route.

Programme

Recap: did they practice relaxation at home?

Script:

In the last two sessions we learnt how to relax through our body: physical relaxation.

In the next two sessions we will discuss and practice mental relaxation. How we can create a balance between mind and body.

One useful definition of stress: ‘A person suffers stress if they feel they have more demands placed on them than they can cope with’. The demands can come from without or from within.

We are going to try out some ways of reducing demands from within ourselves by learning to control our thinking and by exploring the power of positive thinking.

One such method is a cognitive behavioural strategy, developed from cognitive behavioural therapy (CBT). This strategy is trying to understand

how our thoughts influence our behaviour and feelings.

Our beliefs influence the way we see things:

Handout: referee: The way we think can turn a neutral event into a success or a threat: ‘invent a caption’. What is going through the mind of the people in the stand? Discuss with the person next to you.

Handout 3: Thinking/behaviour/emotion.

Discuss

Sometimes we think negative thoughts such as ‘I am stupid’, I always fail in maths’, I won’t have anything interesting to say at the party.

Nobody likes me.

Activity: ‘Counter cards: ‘Write a negative, faulty thought on one side of your card. Ask the person next to you or your friend to challenge this thought and to write things proving that this thought is not true or exaggerated on the other side of your card.



University College London

Doctoral Programme for Practising
Educational Psychologists
(DEdPsy)

Professional Practice Assignments

Submitted in part fulfillment of the requirements
for the Continuing Professional Development
Doctorate in Educational Psychology (DEdPsy)

Name of Course Member: Paula Astrid Gregor

Index of Assignments

Assignment 1

**Title: Meeting the Needs of Able Children –
Inclusion or Segregation? Page 1**

Assignment 2

**Title: The Role of Pupil Referral Units in
Promoting the Inclusion of School Refusers; Help
or Hindrance? Page 39**

Assignment 3

Title: Gender and Achievement in Schools. Page 97

Assignment 4

Title: The Evolving Professional. Page 137



University College London

Continuing Professional Development
Doctorate in Educational Psychology

PROFESSIONAL PRACTICE ASSIGNMENTS

Submission for Examination

Name: Paula Astrid Gregor

Number and title of Assignment: Assignment No 1

Title: Meeting the Needs of Able Children – Inclusion or Segregation?

Section of the BPS Core Curriculum for Professional Training in Educational Psychology to which this assignment relates:

Section 1 Psychological Assessment and Intervention
1.2.2 Cognitive development including general and specific strengths and the needs of very able children.

Submission Statement

I confirm that:

1. This submitted assignment is my own work; and
2. I have read and acted upon the guidelines for avoiding plagiarism contained in the DEdPsy Handbook

Course Members Signature:

Date:

P. A. Gregor

20.2.00

Consent Statement (optional)

I authorise the Department of Psychology to make a copy of this assignment available for public reference at the discretion of the Course Director.

(Please note that copies of examined work may be retained for up to five years for University quality assurance purposes).

Course Members Signature:

Date:

P. A. Gregor

20.2.00



University College London

Doctoral Programme for Practising
Educational Psychologists
(DEdPsy)

Professional Practice Assignment

**Submitted in part fulfillment of the requirements for the
Continuing Professional Development Doctorate in
Educational Psychology (DEdPsy)**

**Name of Course Member: Paula Astrid
Gregor**

**Title of Assignment: Meeting the
Needs of Able Children – Inclusion or
Segregation?**

Assignment Number: 1

**Core Curriculum area to which this
assignment topic relates:**

- 1 Assessment and Intervention**
- 1.2.2 Cognitive development including
general and specific strengths
and the needs of very able
children.**

Date submitted: February 2000

Signed: 

Table of Contents

- 1. Introduction**
- 2. Aims and objectives**
- 3. Definitions**
- 4. Research evidence (in table form)**
- 5. Discussion of research evidence**
- 6. Case study**
- 7. Conclusions**
- 8. Recommendations**
- 9. Summing up**
- 10. References**
- 11. Appendix**

Title: Meeting the Needs of Able Children – Inclusion or Segregation?

1. Introduction

Following an increased focus by Ofsted and government legislation regarding able pupils the needs of able children have now moved centre stage of the educational debate and into mainstream education.

Most recently, the government established an expert advisory group for the 'gifted and talented' which will formulate a national strategy for the education of talented children. It will draw from the experience of schools taking part in the three-year 'Excellence in Cities' programme, designed to help inner city children to stretch their abilities. The school standards minister describes specialist schools as having a significant part to play, but states that the government did not intend to educate all gifted children within them. The advisory group emphasises the need for improvement of provision for the able in mainstream schools. Joan Freeman, in her extensive critical survey of research evidence on the development and education of very able or gifted pupils (Ofsted Review of Research 'Educating the Very Able', 1998) concludes: '.... But the (research) evidence points to the benefits of focusing on particular educational provision for the very able.' There appears to be lack of clarity as to how the needs of able pupils are best met.

For these reasons it seemed timely to re-examine research evidence and practice on learning environments for the able, particularly in the light of government backed emphasis on inclusion of children with special educational needs.

2. Aims and objectives

- To re-examine current research and practice regarding provision for able pupils in the light of recent government initiatives on inclusion.
- To examine facilitating factors and constraints to developing the best possible learning environment and learning processes for able children.
- To draw out some implications and recommendations for future action for LEA's, schools and educational psychology services.

3. Definitions of exceptional ability

3.1 Quantitative

The quantitative definition adopted for the purpose of this assignment is based on Freeman's estimate of an incidence of 20 % of the school population as able pupils and 1 – 2% as exceptionally able or gifted (Freeman 1991).

3.2 Qualitative

Models of exceptional ability or giftedness are gradually moving from narrow, within-child

definitions to include the effects of the learning environment for developing this ability.

Early models of intelligence such as Terman's (Terman, 1925), are based on psychometrics, with the limitations that are the subject of ongoing debate. Wider

views of ability developed more recently are models such as Gardner's model of multiple intelligences (Gardner, 1983). Gardner proposed seven intelligences: linguistic-verbal, spatial-motor, logical-mathematical, musical, bodily-kinaesthetic, interpersonal and intrapersonal. According to Gardner the ability to make sense of the world requires the use of all seven intelligences. Exceptional ability can be defined as level of ability, which is unusual for the population in which it occurs. A person can demonstrate unusual levels of ability in all areas of their development or in any one sphere.

The preferred model of exceptional ability adopted in this assignment is Gagne's model for the more able and exceptionally able (Gagne, 1994). Gagne's model extends the notion of multiple intelligences to include factors such as the learning context.

Since exceptional ability alone does not necessarily guarantee outstanding achievement without motivation, support and matching learning opportunities, Gagne's model appears to be the model most relevant to this assignment.

4. Overview of research evidence on provision for the able.

An overview of research evidence on provision for able pupils is provided in tables 4.1 to 4.4. The tables compare research findings on a variety of strategies and provision for able pupils and look at strengths and weaknesses of individual pieces of research. The last row in each table, labelled 'favouring inclusion' investigates whether the findings of each particular study suggest inclusion as the best possible strategy for able pupils. The studies included in the table are the major studies identified since the last literature review carried

out by the author during an action research project on able pupils in 1994. The focus of the studies is provision for the able. Studies, which focus on identification or other aspects of exceptional ability, are not included.

Research evidence – overview of provision/strategies for able pupils

Organisational responses: Table 4.1

| Provision/strategies | Mixed ability teaching | Grouping (by musical ability) | Grouping (by subject ability) | Streaming (i.e. grouping by overall ability) |
|-----------------------------------|--|--|--|---|
| Research projects, studies | Sternberg and Lubart (1995) Comparative Study; Performance measures on Creativity tests | Hany (1996) Post-hoc study | Dar and Resh (1996) Study of the effects of classroom composition on achievement | Kenny et al.(1995) comparative study of effects of cooperative learning for mixed ability and gifted-only groups |
| Findings | able pupils did worst on creativity tests and conformed to expectations by being 'good scholars' | Grouping by musical ability is a good indicator of ability | Average ability pupils Benefited from mixed ability group – Able pupils did better in streams, particularly for maths and foreign languages | positive effects on the gifted, but no pull-up effects for more average ability children. |
| Strengths | approach favours pupils of average ability | Provides pointers for identification | Approach appears to differentiate between ability levels | |
| Weaknesses | gifted not sufficiently challenged | This study targets only a small group of able pupils | | |
| Favouring inclusion | N | N | N | N |

N.B. The layout of these tables is based on an idea by my EP colleague, Carol Greenway

Research evidence – overview of provision/strategies for able pupils

Organisational responses Table 4.2

| Provision/ Strategies | Setting (by subject specific ability) | Reciprocal teaching of comprehension | Peer Tutoring | Mentoring |
|---------------------------------------|--|---|--|--|
| Research projects, studies | Chyriwsky and Kennard (1997) survey of mathematics teachers in secondary schools | Palinscar and Brown (1984) | Wood et al (1995) | Freeman (1998) |
| Findings | most teachers preferred setting over streaming | Reciprocal teaching is a useful strategy in mixed- ability situations | make-up of peer pair affected outcome, but learning with adults led to best results with the able | children can benefit from interaction with adult specialists |
| Strengths | informs on teacher attitudes and preferences | Provides pointers regarding effective teaching styles | Provides clear pointers towards adopting mentoring as part of good practice for the able | provides suggestions for additional provision |
| Weaknesses | opinions yet to be backed up by informed research | Opinions rather than evidence Research needed More specific focus on reciprocal teaching for the able needed | | Not an outcome study |
| Favouring inclusion | Y | Y | Y | Y |

Research evidence – overview of provision/strategies for able pupils

Organisational Responses Table 4.3

| Provision/ Strategies | Acceleration or fast-tracking | Acceleration: grade-skipping | Acceleration | Acceleration | Acceleration | Acceleration in special schools (hot-housing) |
|---------------------------------------|--|--|--|--|---|---|
| Research projects/ studies | Brody and Benbow (1987) USA post-hoc study of student population | Heinhobel (1997) Germany post-hoc questionnaire survey 103 'skippers' | Benbow(1991) USA | Gross (1993) Australia 10 year case study of 15 pupils | Swiatek and Benbow (1991) 10 year case study | Zha 1995, China. comparing 60 primary schools with accelerated classes for gifted pupils |
| Findings | no harmful effects on emotional development, but positive effects on achievement | social integration process proved problematic for some accelerated pupils | Acceleration improved the motivation of able pupils | Conclusions: gifted children had emotional problems because they had to learn with age-peers of average ability. | by age 23 years differences even out | no difference in IQ scores found, but pupil in experimental schools were better in thinking tasks |
| Strengths | informs on teacher attitudes and preferences | provides pointers regarding effective teaching styles | Provides clear pointers towards adopting mentoring as part of good practice for the able | post hoc study | demonstrates long term outcomes are doubtful | |
| Weaknesses | | | | small sample, conclusions valid for populations at large? | | |
| Favouring inclusion | N | Y? | N | N | inconclusive | N |

Research evidence – overview of provision/strategies for able pupils

Curricular Responses Table 4.4

| Provision/ Strategies | Enrichment | Enrichment by withdrawal | Enrichment by provision | Enrichment | Differentiated Instruction |
|-----------------------------------|--|--|---|--|--|
| Research projects, studies | Shahal (1995) Israel Comparison of pupils in gifted classes with weekly enrichment in regular schools | Moon et al (1994) USA case study of 23 youngsters taken out of class for special teaching for three years | Renzulli (1995) USA Interactive model using provision geared to the children's own interests. | Walberg (1995) USA Survey of 8000 comparative studies of American education for the gifted | Friedman R(1996) USA Comparative study of three models of instruction in ordinary classroom |
| Findings | children in enrichment classes reported that they were more challenged academically, but that they felt more isolated. Most preferred the gifted classes to general enrichment | Provision is at its most effective if it is in tune with pupils' development. long- term effects only moderate and evening out selection for special teaching should not be a voluntary after school extra, but should be integrated in with the normal school curriculum | Findings in recommendation form only and not evaluated | pupils in enriched education did better in school than equally able without it, but motivation was an important factor | Cognitive-affective interaction model (Williams 1986) showed greatest gain in 'cognitive complexity' teacher questions and student responses |
| Strengths | Informs on teacher attitudes and preferences | Provides pointers regarding effective teaching styles timing of provision in developmental terms is as important as provision itself | Provides clear pointers towards adopting mentoring as part of good practice for the able | shows importance of investigating mediating variables such as motivation | Outcome study with evidence based evaluation |
| Weak- nesses | | | Outcome studies needed | | Dependent variables not sensitive enough to distinguish between models? |
| Favouring inclusion | inconclusive | Y | Y | Y | Y |

5. Points emerging from the research on provision

It is clear from the comparison in the tables above that true experimental research on the needs of able children is complex and thin on the ground and what there is appears to be inconclusive or even contradictory. This view is echoed by Friedman (1996), who concludes her research article as follows: 'In searching through the explosion of literature on inclusive education, one finds few articles mentioning needs of gifted and talented learners in inclusive settings'.

Similarly, Joan Freeman (op.cit.) lists specific problems of objective and rigorous research on able pupils as follows:

5.1 Researchers' attitudes, theoretical constructs and definitions

There is a wide variation in this area with views swinging from considering the gifted as unique and non-comparable to seeing them as normal children with exceptional aptitudes. There is lack of agreement on definitions and models of giftedness and this lack of inter-changeability affects the comparability of studies. The shift from models interpreting exceptional ability as a uni-dimensional, within-child variable to models, which include other variables such as the learning environment, further complicates research in this field.

5.2 Size of sample groups

Selection of samples uses a variety of methods and there is a lack of control groups when comparing the able with groups of different abilities and educational experiences.

By definition very highly able children are rare and it is relatively difficult to find representative samples.

5.3 Research designs

In addition to small sample sizes, retrospective case studies of 'eminent' people present the problem of distortions of memory of the participants, lack of comparability as well as cultural differences.

5.4 Validity and reliability of measurements

Many studies of highly able children use static measures of I.Q. and neglect a whole host of mediating variables such as motivation, self-esteem, drive, creativity and learning opportunities. In addition measurements are seldom comparable and baseline measures are often missing.

5.5 Strategies and provision

Freeman comments on the lack of data on outcomes. In addition, long-term studies are inconclusive as to the best possible provision for the able. The research base in this field consists mainly of action research projects with rigorous studies in the minority.

5.6 In addition the following points can be made:

No data have been collected on an experimental evaluation of out-of-school provision such as special weekends/summerschools or competitions.

It is hoped that some more information will be gleaned from an evaluation of the most recent government initiatives.

5.7 Where does this leave us?

Some pointers for improving research in this field (Freeman, op.cit.)

- 'Clearly defined theoretical bases and statements of goals for extra provision
- Comparisons of outcomes from different forms of provision, e.g. enrichment or acceleration
- Generally acceptable scientific standards of methodology and case-study reports
- Cross-cultural and cross-social comparisons to test concepts of universality
- Comparisons of experimental interventions in and out of places of education
- Investigation into high-level learning and thinking
- The effects of labelling children as very able.'

Passow (1990) echoes some of these points as well as calling for research on educational and socialisation opportunities needed to transform potential into performance. He advocates research on ways of nurturing giftedness in populations, which are disadvantaged.

5.8 Improvements in able research recommended on the basis of evidence listed in the comparison tables above:

- Greater emphasis on mediating variables such as teacher attitudes, questioning styles and pupils' learning styles
- More emphasis on developmental aspects of educating the able

- Greater emphasis on researching the reasons for under-achievement of the able along the lines of Kathryn Sadler's study on attributional styles (in draft, 1999)
- Greater focus on processes rather than content, i.e. enrichment can be provided with very simple resources at times, provided one knows how to do it. When designing learning opportunities for the able, the issue is not so much acceleration versus enrichment but rather when to accelerate. Most pupils would benefit from enrichment some of the time, but also need time for consolidation of learning and for reflection
- A shift of focus from a seeming preoccupation with definitions and identification to provision and learning environments.

5.9 Some other reasons why there are so relatively few controlled studies and why research in this field is difficult:

Until recently research has been stimulated and financed by pressure groups such as NACE and systematic government-led studies have been lacking.

In some comparative studies (i.e. mixed-ability groups versus able groups) where the organisation of the lessons has been inclusive, i.e. the able have been physically placed with the rest of the pupils, differentiation for the able was not sufficiently fine-tuned.

We have yet to develop a common language in this field of study, so that concepts such as 'giftedness' or 'grouping' or for that matter, 'inclusion', mean the same thing to different people.

Research findings on provision for the best possible provision for the able are inconclusive. Perhaps the following case study offers more insight into good practice.

6. 'Callum'– a case study

Background

Callum started school in Scotland. He was reading and writing from the age of two. He then attended a Gibraltar Service School, where he was accelerated and assessed by the Principal Educational Psychologist of the Forces Educational Psychology Service and found to be functioning at the 99.77th Percentile (WISC III UK).

Callum joined a Buckinghamshire primary school when he was six years old, but he was not making much progress at first. His experiences at the school are described in more detail in the Appendix to this assignment.

The school consulted the advisory and educational psychology services and this is where the author's involvement with Callum started.

Callum successfully took the Buckinghamshire selection test for secondary school, the 11 plus at age 9 and achieved a B grade in GCSE Maths at age 10 in spite of 'flu'. He was offered a scholarship for Eton and now wants to be a 'King's Scholar'. Callum's parents would like him remain a day pupil until he is 13, when he will become a boarder. In the remaining three years until he is 13, Callum is attending a local independent school. When Callum first joined this school, his new maths teacher described him to his parents as follows: 'speaking in a pompous way, fidgeting in the maths class, considering the questions beneath him and not bothering to answer them '. It would appear that this teacher lacked understanding of Callum's exceptional talent and

misinterpreted Callum's behaviour and language. However the children and the other teachers in the school were been very welcoming to Callum, treating him as a bit of a celebrity. Callum is reported to have settled down in his new school and to start to demonstrate his ability.

The alternative route for Callum at this stage would have been to attend the local grammar school early, but Callum's parents had not wanted to deprive their son of the exceptional chance of this scholarship.

This case provides pointers as to what went well in Callum's life in the mainstream primary school, from the perspective of Callum's headteacher, his mother and the EP. For a more detailed account of these views please see the Appendix.

7. Conclusions

Callum's case provides clear messages as to meeting the needs of the very able in the most sensitive way in any learning environment. The common strands emerging from research evidence, from EP practice and from the case study as well as from Government and Ofsted recommendations as to good practice and constraints of provision for the able are as follows:

7.1 Common constraints of provision identified from practice

There is lack of continuity of provision between the primary and secondary phases as well as lack of communication between mainstream and independent sectors. The

needs of the very able are poorly understood among some members of the teaching profession due to a lack of training/information. There is a lack of a whole-school approaches and the nature of provision for the able is 'ad hoc' and dependent on interested and motivated individuals. There is also a lack of support networks such as the advisory services and the educational psychology services in the independent sector and the involvement of such support services in mainstream can be hit and miss. Some teachers hold politically biased views influenced by jealousies. These teachers may perceive meeting the needs of able pupils as elitism and giving to those who already have. As in any system with limited resources there is tension between excellence and equity.

7.2 Common themes emerging from DfEE recommendations as well as from research and practice

The needs of able children are successfully met in schools where there is whole school involvement and where all staff have the same ethos and approach. These schools offer a strong PSHE programme to pupils from an early age. The recommendations of the House of Commons Select Committee echo this by calling for a change of attitude among teachers and LEA's, by emphasis on improving mainstream schooling and by funding to be made available at whole school level rather than linked to individual pupils. 'All schools should seek to create an atmosphere in which to excel is not only acceptable but desirable' (House of Commons Paper No. 22 – I, Highly Able Children, June 1999).

The emphasis on a whole school approach is not new. It is familiar from successful provision for pupils with special educational needs. It also matches the conclusions by Gregor (1994) that one of the most important ingredients for successful provision for able children is a within – school approach, showing understanding of their needs including their emotional and social needs and offering opportunities to pupils to demonstrate their ability.

Programmes such as the 'Excellence in Cities' initiative will be successful only, if it targets all the children in the schools involved. It appears that in some schools in the areas involved in the programme, heads are reluctant to target funding on able children only and are, therefore, slow in implementing the programme.

Another common theme emerging is the need for well-integrated enrichment and differentiation through increasing the 'cognitive complexity of teacher questions and student responses' (Friedman, 1996) and for training of teachers in more effective questioning skills.

There is no doubt that developmental considerations are important when planning provision for the able. While one of the main needs for the very young school child is the need for socialisation, i.e. to learn to be part of a group, such as was so successfully achieved by Callum, the highly able adolescent may prefer to be 'normal in context' i.e. be part of a group of peers like him or herself. Whitaker (2000) illustrates the concept of 'normal in context' by the analogy of the deaf community, whose members may consider their community as the mainstream, although it is segregated, and prefer to belong to it (personal communication).

One approach which would take some of these considerations into account is Freeman's 'Sports Approach' (Freeman, 1995). This approach recommends identification by provision which should be continuous and process-based and which involves the pupils themselves in educational decision – making. In the same way as pupils talented for sports such as football can select themselves for extra tuition and practice, those talented in other areas could opt for extra tuition in academic subjects. This approach could also encompass mentoring as being one of the strategies found to be effective in research on the able. It also fits in with setting as one of the organisational responses recommended in secondary schools by the DfEE. (1997).

8. Recommendations

8.1 What schools should do now.

At whole school level

- To apply the principles of good practice for meeting the needs of children with special educational needs to the needs of the able. There are similarities between these groups of pupils at the more extreme ends of the continuum. In some ways they are a mirror image of each other, to give just a few examples: pace of learning: slow – fast, nature of tasks: closed – open, consolidation time for learning: long – short
- To apply the lessons to be learnt from EiC projects to their own school: examples: to appoint a coordinator for the able and to form clusters with other schools
- To provide training for all school staff in order to increase their understanding of the needs of able pupils
- To liaise closely with parents and to harness their knowledge of their children and their expertise

In the classroom

- To adapt methods of teaching which are founded on research evidence, i.e. findings on cognitive complexity of questioning pupils (Friedman, op.cit.)
- To use interactive computer based learning in a creative way in the education of able pupils (Leyden, 1998)
- To offer pupils opportunities to demonstrate their abilities
- To take account of the emotional and social needs of able pupils and to treat them as normal children.

8.2 What LEA's should do now.

- To support schools in improving learning environments and provision of the able in mainstream schools so that parents of able children opt in rather than opt out into the independent sector
- To provide training for teachers on the needs of the able on a county-wide basis
- To generalise government findings and the recommendations of the Ofsted Review to local conditions
- To be aware and to learn from an international and particularly a European perspective

8.3 What Educational Psychology Services should do now.

- To participate in rigorous short and long-term research into the best fit provision for the able
- To raise awareness of the needs of the able in the Service
- To provide training on the needs of able as part of CPD
- To develop policies and guidelines on consistent and equal delivery of service to schools regarding the needs of the able
- To contribute towards attitude change and increased understanding of the needs of able pupils in the schools and in the wider community
- To assist schools in developing whole school policies
- To focus particularly on the needs of under-achieving able pupils and able pupils with SEN's as well as on the needs of ethnic minority pupils

- To apply psychological principles and knowledge to developing an inclusive learning environment for the able
- To publicise the activities of the 'Educational Psychologists and Able Pupils Network and to exchange information through this network.

9. Summary

This assignment attempted to examine provision for able pupils with reference to the existing research base and to EP practice and with a particular focus on inclusion and found both research evidence and practice confusing and contradictory and to paint a disparate picture. Some ways forward were suggested for LEA's, schools and educational psychology services.

However, some important issues have not been addressed in this assignment. Among these are the social and emotional needs of the able, partnership with parents as well as equal opportunity issues such as the effects of ethnicity, culture, language and gender. More thought needs to be given to the needs of able pupils who are underachieving and /or who have special educational needs. Educational psychologists have a contribution to make towards this goal, and some ways in which this can be done have been outlined in this assignment.

Perhaps the question as to inclusion or segregation of able pupils is not the right question to ask. Perhaps it is more productive to think of inclusion in terms of equal opportunities, for able children to have their needs met with matching provision which is flexible and targets the whole school while being sensitive to the individual.

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11. Appendix

Callum – a case study

Below is a summary of the personal views of the headteacher of Callum's mainstream

school, Callum's mother and the school's link EP. These accounts provide a more

detailed analysis of what went well in the mainstream school as well as of the constraints

of both the state and the independent sector.

The headteacher's view:

'Callum joined the school as a Year 3 pupil. His reports from his schools and the psychologists made it clear that he was an exceptionally able pupil. It was recommended that he be placed in the year above.

On joining the class Callum appeared to work very slowly. His handwriting was beautifully formed and his drawings were outstanding, however, he would not write freely. The reason for this appeared to be that he could not accept that incorrect spelling was justifiable. In maths Callum seemed quite average, particularly mental maths and tables.

At this stage Callum's attitude and behaviour was rather eccentric. He paced the playground, often with his arms behind his back, looking at the ground and muttering. He rarely communicated with his peers, only adults and indeed his speech bore similarities to that of adults. He was quite often obsessive, for example with nature and mini-beasts or the latest technological devices he could dream up.

After a few weeks we started a programme to help Callum integrate better. First we paired him with sensitive but mature children. The next stage was to help Callum understand that we wanted to know what his ideas were. He was shown how other children used 'trying or have a go' words. He read their work and realised he could understand it. He began to write, slowly, and his handwriting was still perfect.

He was taught by two staff at this point. One, the PSHE coordinator, employed circle time to great benefit both for Callum and the rest of the class. It was not all successful at first. His maths remained rather ordinary. However, by the end of the year Callum was mixing with others on the playground, usually in creative, imaginative games.

At the end of the year we discussed with his parents as to whether he should be moved up another year. As a staff we felt that to be inappropriate. There was no doubting his capabilities but we were convinced that he was starting to build real friendships and did not need to start on another socialisation programme.

As he reached Year 5, his confidence grew. He was constantly encouraged to work in pairs and small groups. His teacher unlocked his mathematical ability. The children in Year 5 and Year 6 are set by ability and he was placed in the top set. It became clear that he had his own methods of calculation, which were fast, and efficient; he did not need tables or conventions. He rose to the challenge and quickly set off to work out formulae.

By now he was writing. His handwriting was no longer perfect, nor his spelling, but what he wrote was amazing. His poetry was beautifully constructed, sensitive and astonishingly mature.

He started to select his friends; he mixed with them out of school and occasionally even broke the rules. He even joined in with team games and showed normal frustration when he failed to score a basket. His peer group respected him. Through the school a programme of PSHE is followed and this continued to contribute to a two way understanding between Callum and his fellow pupils. They came to know that he was special, he came to accept that they had special 'abilities' too.

Throughout this year the teacher challenged and encouraged Callum. He was never asked to do more, merely to ask himself if he had found the only answer; could there be another way?

By the time Callum reached Year 6 we knew we needed additional help particularly in Maths and possibly in Science. It was decided to apply for him to sit the 11+ with this same group of children and this he did. County advisers were approached. They visited the school and Callum. Their advice was very good and we were able to help Callum access a higher curriculum, including GCSE Maths, which he sat this summer.

Callum's friendships were firm, by now he was totally integrated. His fellow pupils were very proud of him. The final confirmation that Callum was really one of the class was when he joined the class on the residential trip. He took a

full part even though he had to return midweek to sit a GCSE exam. He went back to finish the week and thoroughly enjoyed himself.

Callum continued to be constantly challenged and even set up challenges for himself. He gained Level 6 in Science and Maths and although totally capable of a Level 6 in English, he had had enough and did not want to sit the paper.

Working with a child like Callum is an extraordinary experience. The learning curve of the staff was huge. Analysing what was done was difficult but the one clear approach was that it was a whole school involvement. The structures, strategies and ethos of the school were so important because it was essential that everybody involved with Callum had the same approach and attitude. This was particularly important with his fellow pupils. The strong PSHE programme which children followed from the earliest ages prepared them for such an unexpected situation. It was natural for them to accept him and his special talents just as it would be to accept 'Luke and his football talents' or 'Peter's amazing singing voice' and equally 'Sarah's speech defect' or 'Susan's limp'.

Secondly, it was essential to remember that Callum was a young boy. His life's experiences were short although his knowledge was huge. Allowing, indeed encouraging him, to show childlike emotions whether that was laughter or frustration, was also a paramount importance. He was capable of reading Dickens and Tolstoi, but was encouraged to play and others to play with him. Both found ways to negotiate, to firm common ground and to repeat each other.

Thirdly, Callum was never over burdened by work. He was never asked to do the next question or exercise, nor write a longer story. He was shown that life was full of unanswered questions, of alternative solutions. He was challenged and was shown how to challenge his own methods and solutions. Other high achieving children helped to keep him stimulated and sometimes brought him back to earth, thus avoiding complacency!

Most importantly, we worked with his parents at all times. During this time with us there has been no 'fuss'. Sometimes concerns were expressed and these were immediately dealt with. We kept them informed and they us. We have not met more than with most parents, perhaps a rather similar pattern to meeting with parents whose child is on the SEN register.

In conclusion, we thought of Callum as a child first and then as a child with exceptional ability and we believe that it was this approach, which allowed him to remain in the Primary Sector. We recognise that there comes a point when such a child can no longer remain with the bulk of his peers, where he needs the stimulus of similarly blessed children. Callum has almost reached that point now and is ready to take on this new phase as confident, well adjusted boy with a wicked sense of humour.'

2. The parents' view; Callum's mother writes:

'Aspects of the State system which have been beneficial to Callum and his progress

'Within a couple of weeks of starting school in Scotland, Callum was quickly promoted to the year above. The school recognised that Callum's social skills

matched his intellectual abilities, in that he was quite happy being with children a year older than himself.

Of great benefit to Callum have been individual teachers who recognised his needs, encouraged and inspired him, and have kept us informed of their ideas and plans for him. The support and understanding of the head and the teachers proved to be most important to Callum.

Aspects of the system which have been unhelpful to Callum and his progress

The most significant and unhelpful aspect of the system are teachers who are resistant to the idea of 'giftedness' (for whatever reason). Secondly, teachers who lack the experience, expertise, understanding or commitment to teach a child such as Callum. Just to name an example, one teacher told us we were 'breaking the law', by having Callum taught in a class a year above his age group and that he was 'against elitism'. His method of 'encouraging' Callum to write more was to seat him alone at a table for a whole day until he had completed a poem.

On the face of it, Callum has been extensively tested and assessed. However, the extent and depth of his self-taught knowledge and his real understanding of a wide range of subjects (Astronomy, Biology, Geophysics, Greek, Latin, Palaeontology, Physics and Psychology) has largely gone unnoticed.

Support provided by us parents

Undoubtedly the most important things we have given Callum have been love, understanding, security and support.

We have always sought help and guidance, even when this has meant raising difficulties. From our point of view as parents, this has been the most difficult and uncomfortable aspect of our support’.

3. The author’s (Educational Psychologist’s) view:

‘As the link educational psychologist for Callum’s most recent school and with a special interest in the needs of very able children I was consulted regularly by the staff at the school about Callum’s progress and watched him blossom in every respect. I observed children in Callum’s class on various occasions and could not fail but notice this very talented youngster in their midst.

My intervention was on a consultative basis, by telephone with Callum’s mother and during regular school visits with the school staff. I had the pleasure of an individual chat with Callum only at the end of his time at the school. He shared his interest in space and time, particularly in black holes, time warp and singularities. When asked how many uses he could think of when imagining a stone, he came up with about fifty suggestions and said, between us, we could come up with an infinite number!

Callum’s parents and the teachers at his school helped him with very sensitive and flexible management to celebrate his talents rather than to consider them as a burden, to learn to fit into a mainstream peer group, to develop physically, emotionally and socially as well as being challenged intellectually. When Callum first joined the school, he could not ride a bike and he was reticent to talk to people. During his final days at the school he could be found in the middle of a lively group playing basketball any lunchtime.

When asked what the EP's contribution had been to meeting Callum's needs the Head of the school said it was the fact that the EP provided ongoing reassurance and support, strengthening the confidence of the school that 'they were doing the right thing, looking at the whole child'

This is anecdotal evidence and it is one single case study of an exceptional child, but it illustrates very clearly the constraints, the hit and miss nature of the provision for the most able as well as the difficulties of finding an educational environment where their needs are fully understood and matched. In particular, it demonstrates the particular sensitivity of these children at the transfer phases: home to school, primary to secondary and even to tertiary education.'



University College London

Continuing Professional Development
Doctorate in Educational Psychology

PROFESSIONAL PRACTICE ASSIGNMENTS

Submission for Examination

Name: Paula Astrid Gregor

Number and title of Assignment: Assignment No 2
Title: The Role of the Pupil Referral Units (PRUs) in Promoting the Inclusion of School Refusers; Help or Hindrance?

Section of the BPS Core Curriculum for Professional Training in Educational Psychology to which this assignment relates:

- 3 The Profession and its Context**
- 3.6 The Role of other Agencies**

Submission Statement

I confirm that:

- 3. This submitted assignment is my own work; and**
- 4. I have read and acted upon the guidelines for avoiding plagiarism contained in the DEdPsy Handbook**

Course Members Signature:

P. A. Gregor

Date:

12.10.02

Consent Statement (optional)

I authorise the Department of Psychology to make a copy of this assignment available for public reference at the discretion of the Course Director.

(Please note that copies of examined work may be retained for up to five years for University quality assurance purposes)

Course Members Signature:

P. A. Gregor

Date:

12.10.02



University College London

Doctoral Programme for Practising
Educational Psychologists
(DEdPsy)

Professional Practice Assignment

Submitted in part fulfillment of the requirements for the
Continuing Professional Development Doctorate in
Educational Psychology (DEdPsy)

**Name of Course Member: Paula Astrid
Gregor**

**Title of Assignment: The Role of the
Pupil Referral Units (PRUs) in
Promoting the Inclusion of School
Refusers; Help or Hindrance?**

Assignment Number: 2

**Core Curriculum area to which this assignment
topic relates:**

3 The Profession and its Context

3.6 The Role of Other Agencies

Date submitted: October 2002

Signed:

PA Gregor

Table of Contents

- 1. Introduction**
- 2. Abstract**
- 3. Aims and Objectives**
- 4. The Context**
- 5. The Psychological Perspective**
- 6. An Integration of Research and Practice**
- 7. Discussion**
- 8. Conclusions**
- 9. Recommendations**
- 10. Limitations of the Assignment**
- 11. Acknowledgements**
- 12. References**
- 13. Appendices**

**Title: The Role of the Pupil Referral Units (PRUs) in Promoting the
Inclusion of School Refusers; Help or Hindrance?**

Introduction

LEAs have always faced difficulties in meeting the needs of pupils with emotional and behavioural difficulties, who have been either excluded from one or more mainstream schools or who are refusing to attend, thus excluding themselves. In the 1980's such pupils would have been placed in special schools, where they would have remained for the rest of their school career or (if they were nearer school leaving age), would receive two or three hours teaching at home. Home tuition was more often the last resort for school refusers.

As a consequence of a firmer stance on exclusions taken by the DFEE, pupils with emotional and behaviour difficulties have been receiving more attention. Pupil referral units (PRUs) are assuming more importance, since excluded pupils are frequently placed in PRUs pending return to mainstream or placement in a special school. School improvement is equally high on the agenda and one of the challenges in school improvement is the ability to include disaffected pupils. School refusers, however still appear to fall through the net of provision, with one of the few sources of support represented by the PRUs. If they are not entrenched at home, school refusers attend PRUs, often on a permanent basis, and there is a danger that PRUs will end up holding a large number of children who are not accessing mainstream education. Instead of providing a solution, the problem may shift from one educational provision to

another. For this reason it is important to re-examine whether PRUs enhance the inclusion of anxious and/or avoiding pupils such as school refusers in mainstream schools, i.e. help them back to a mainstream education, or whether they hinder their re-integration. This assignment targets the relationship between PRUs and school refusers rather than acting-out, excluded pupils, since the school refusers are a minority whose needs do not appear to have been explicitly addressed in the latest government initiatives.

1.1 Information sources

A literature search for this assignment of electronic databases yielded the following results:

Source 1: Database: Yahoo web pages.

Key words: units, pupils, behaviour difficulties.

This search yielded a large number of hits. The majority of web pages publicised LEA policies and practice concerning behaviour management, to quote just one such reference: 'Pupil Services: Introduction to the Education Department'. These documents mention Pupil Referral Units in passing, but no empirical research on the topic was found during this search.

Source 2: Database: PsycINFO.

Key word: pupil referral units: - 2 critical hits.

Article No.1 entitled 'Pupil Referral Units: Are they effective in helping schools work with children who have emotional and behaviour difficulties? (Hill, 1997), examined the impact of a newly opened Pupil Referral Unit on pupils, teachers and Special Needs Co-ordinators (SENCOs). The researcher interviewed five pupils and a teacher from the Unit, and eight SENCOs who used the service completed a questionnaire concerning the usefulness of the service. It was

found that the local PRU had been effective in helping schools, if effectiveness is measured by pupil, SENCO and teacher satisfaction. The qualitative evaluation of this study may be useful, but the sample was small and measures were post-hoc, failing to establish base lines and performance indicators.

The second relevant reference entitled: 'Excluded pupils: the mismatch between the problem and the solutions' (Morris, 1997), discussed the increasing incidence of disturbing behaviour in both primary and secondary schools and the increase of exclusion. Morris examined recent Government legislation on behaviour management and concluded that the DfE's philosophy that PRUs should aim to re-integrate excluded pupils into mainstream schools was ineffective. Morris described many PRUs as '*dumping grounds for the most disturbing pupils*'. Morris argued that the disaffection of these pupils could lead to truancy, future unemployment and crime, and called for additional help from the Government to tackle the problem of exclusion in a more realistic fashion.

Source 3: database: ERIC

Key words: pupil referral units: 2 hits.

The reference relevant to this assignment, entitled ' Exclusion from School: What Can Help Prevent It? (Castle et al., 2001) evaluated British projects involving multi-disciplinary behaviour support teams, off-site Pupil Referral Units and In-School Centres in the reduction of exclusion and identified as common features of successful teams: school staff, administrator and parent involvement, student self-monitoring, flexibility as well as identification and communication systems.

ERIC: Key word: off-site units: 1 hit.

In this key article entitled 'A la Recherche du Temps Perdu: Case-Study Evidence from Off-Site and Pupil Referral Units' Garner (1996) argued that current provision for pupils excluded for behaviour problems (Pupil Referral Units) were replicating problems that had traditionally existed in segregated education. Garner noted the similarities between current provision and the off-site units for 'disruptive children' of the 1970s and 1980s. He had gathered evidence from interviews with excluded pupils and their teachers and identified constraints such as poor level of resourcing and accommodation, chaotic and haphazard referral and re-integration policies as well as low pupil and teacher status as some of the main factors responsible for what he called '*an often well-meaning but hopelessly inadequate response to the needs of these children*'. However, this is one particular view, based on a small, illuminative case study with its own local constraints. The status and resourcing of PRUs has been improving considerably since 1996. For this reason Garner's views have to be treated with caution.

It can be noted that all these references concentrate on acting-out pupils and exclusion and none of them explicitly mention the role of the PRUs in re-integrating anxious or depressed pupils and school refusers. This relative paucity of information concerning this group of pupils in the PRUs is confirmed by Elliott (1999) in his 'Practitioner Review' on school refusal. Elliott concluded: '*In some LEAs, off-site pupil referral units, often catering for children with a variety of differing needs, are deemed to be appropriate settings for school refusers. .. To date, there appears to be no published research that has*

examined the effectiveness of such units with school refusers'. For this reason it appears important to stimulate discussion and research on the subject.

The literature search on school refusers and the psychological variables mediating the role of PRUs and school refusers listed in the matrix to follow yielded a vast number of references. Some key factors and references are discussed, but a discussion of all the factors mentioned would go beyond the scope of this assignment.

2.Abstract

This assignment examined the role of the PRUs as one of the support agencies for school refusers in either enhancing or hindering their inclusion or re-inclusion into mainstream. The assignment looked at existing research on the PRUs in general and on PRUs and school refusers in particular, and discussed some of the more important psychological factors mediating the link between PRUs and school refusers as well as research findings that could be helpful in making the role of the PRUs as effective as possible. These aspects were considered in relation to practice in the form of an illuminative case study. This case study was part of a local project carried out jointly by the Educational Psychology Service, the Educational Welfare Service and a secondary PRU.

The assignment noted the paucity of empirical research evaluating the effectiveness of the PRUs in meeting the needs of pupils with emotional and behaviour difficulties in general and of school refusers in particular, and concluded, that, unless the role of PRU is radically rethought, its intervention is likely to be more of a hindrance than a help towards the inclusion of school refusers into mainstream. The assignment identified a gap in provision and formulated some recommendations for further research and practical ways forward.

3. Aims and objectives

- To examine the role of Pupil Referral Units (PRUs) in promoting the inclusion of school refusers into mainstream;
- To examine the psychological perspective and factors mediating this role and to investigate what research evidence would be useful in enhancing it;
- To illuminate this topic through a local case study which was part of multi-agency project;
- To formulate recommendations aimed at enhancing the effectiveness of the PRUs in promoting the inclusion of school refusers.

4. The Context

4.1 Definitions - what is a Pupil Referral Unit?

In the time since this assignment was first begun the role of the Pupil Referral Units (PRUs) has been changing rapidly, both through government legislation and in local LEA policy and practice. Circular 11/94 'The Education by LEAs of Children Otherwise than at School' (DFE) first coined the title of pupil referral unit (PRU) and clarified its role. Section 298(2) of the 1993 Education Act described the PRUs as 'free-standing units which provide education for pupils with emotional and behaviour difficulties which have not previously been registered or approved as schools and whose legal status has been uncertain. These units represent a new type of school known as pupil referral unit. These schools will be managed directly by LEAs and will operate outside LMS schemes'. As early as 1989, the Elton report dealt effectively with behaviour support units. The Elton Report explored behaviour management in schools in a thorough and innovative manner and provided the groundwork for the

frameworks such as whole school policies on behaviour in schools today and for behaviour support services, later known as PRUs (The Elton Report, 1989).

More recently, the importance of the PRUs was increasingly recognised in the document 'Social Inclusion: Pupil Support' (DFEE, 1999). The document described the PRUs as '*a type of school registered for providing education out of school*'. It stated that pupils' long-term needs are best met within a mainstream setting and that placement within a PRU should tackle any immediate problems and aid a smooth re-integration into mainstream. However, the document stressed that a PRU should not be regarded as a substitute for a special school. The document (op.cit.) stressed the importance of close cooperation between schools and Education Welfare Services to resolve attendance issues, but it does not explicitly refer to school refusers.

4.2 The pupil population of the PRUs

In 'Social Inclusion: Pupil Support' (op.cit.), the DFEE identified groups at particular risk of disaffection which appear to be overrepresented at the PRUs, as following:

- Pupils with special educational needs
- Excluded pupils and pupils with emotional and behaviour difficulties
- Children in public care
- Minority ethnic children
- Children from families under stress
- Travellers
- Young carers
- Pregnant schoolgirls and teenage mothers.

Attendance and truancy issues are given particular attention in the document, but school refusers do not receive a special mention, although they make up a significant minority in several local secondary PRUs.

4.2.1 Children with special educational needs

Consultations with the staff of some of the local PRUs during everyday EP practice point to the fact that a considerable proportion of pupils placed with them had significant literacy difficulties. The pupils had started to learn to read late and had encountered difficulties in accessing the curriculum. Their learning difficulties had been masked by emotional and behaviour difficulties.

4.2.2 Children in public care

According to Flynn and Brodie (2000), there is still a low research knowledge base concerning children in public care. Local authorities have not routinely collected information on their education and attainments. Most recently, the local Education Management Database (1999) established that approximately 10% of children in public care are placed in the PRUs.

A large proportion of children looked after are known to have challenging behaviour. Many also have educational difficulties, including special educational needs, which can lead to exclusion from school (Heath, Colton and Aldgate, 1994). These children are underachieving considerably, mainly due to literacy difficulties which are most likely to be due to lack of sustained adult attention (Jackson, 1994). Pupils with these disadvantages are likely to be placed at the PRUs.

4.3 The local perspective

4.3.1 The LEA Behaviour Support Plan

The importance of PRUs in the first Behaviour Support Plan drafted in 1998 is heavily emphasised. The second Plan (2001 – 2004) is aiming to revise the role and function of the Pupil Referral Units in keeping with recent Government requirements to provide full-time education for all permanently excluded pupils. Currently there are 3 local secondary and 3 local primary PRUs but provision is continuously evolving. School refusers are not explicitly mentioned in the Behaviour Support Plan.

The service delivery to the local PRUs by the Educational Psychology Service follows a consultation model, but the way the educational psychologists work with their link PRU depends on phase, size and regional aspects.

4.3.2 The local PRU project

In the Autumn 1999/Spring 2000 three Educational Psychologists and an Educational Welfare Officer worked more intensively with one secondary PRU, on a project to explore the role of the PRU and to develop structures and strategies to enhance the inclusion of school refusers.

The objectives of the project were:

- To develop a framework to promote the inclusion of school refusers by the PRUs
- To develop effective strategies for the prevention of absence from school.

As part of this project, PRU staff and pupil perceptions comparing the role of the PRU and of mainstream schools in meeting the needs of pupils attending PRUs

were gathered using a questionnaire, which was put together and circulated to staff and pupils at the PRU by the project team (Please see Appendix 1 for a copy of the questionnaire and the staff and pupil responses).

4.3.3 Checklist – identification of target pupil

The project EPs presented the results of the attitude survey back to the PRU staff and, jointly, developed a checklist assessing readiness for re-integration. This checklist was designed as a framework, which could be used for a variety of pupils with different needs, although the main focus was on school refusers. A copy of the checklist is included in Appendix 2.

4.3.4 View of mainstream staff

As part of a previous project an EWO and one of the project EPs (Gregor, 1998) had conducted a structured interview with the Heads and Sencos of six local secondary schools and found that the schools appreciated the outreach work of the PRU staff carried out in their setting rather than having their pupils withdrawn into the PRUs. They were happy to share PRU skills and they were looking towards increasing the roles of the Sencos. Their emphasis was very much on adapting their own environment to the needs of school refusers.

5. The psychological perspective

A taxonomy identifying factors, which mediate the inclusion of school refusers with the help of the PRUs (abstracted from my literature review)

| | |
|--|--|
| <p><u>Within child factors</u> Age Child mental health: anxiety disorders: separation anxiety (Bernstein 2001) Avoidance behaviour Self-esteem Learning style (Rayner et al, 1996) Motivational patterns (Solomon & Rogers, 2001) Attributions Social competence (Gresham & Elliott, 1993) Life and educational experiences</p> | <p><u>Within family factors</u> Family composition and cohesion Family/carer mental health Attachment patterns (Bowlby, 1969), (Ainsworth & Wittig, 1969), (Greenberg, 1999) Disturbed family dynamics (Hersov, 1960a, Davidson, 1961) Parenting skills Family stress Family culture Parenting style Parental aspirations Parents'/ carers' school experiences Economic situation (access to transport)</p> |
| <p><u>Within school factors</u> Educational climate (Hanko, 1990) School size and layout School ethos (Rutter et al., 1979) Discipline and reward systems Leadership, policy and procedures School effectiveness (Mortimore, 1984) Curriculum Teacher culture (Dalin, 1993, Miller, 1996) Communication systems Support/pastoral systems Staff organisational groupings Teachers' attributions and expectations (Croil & Moses, 1985) Teacher commitment to inclusion Teaching styles Pupil cultures Peer pressures, eg. Bullying (Smith & Sharp, 1994) speed of intervention</p> | <p><u>Within PRU factors</u> Ethos and leadership Communication systems Structure Group sizes Group composition and dynamics Staff and pupil expectations Relationships Reward systems Teacher skills Teaching styles Knowledge of intervention strategies</p> |

5.1 Discussion of key mediating factors listed in the taxonomy

The factors listed in the taxonomy impinge on the refusal behaviour of the pupils in the PRU and on their inclusion. They are by no means exhaustive.

5.1.1 Within-child factors

Separation anxiety

Eisenberg (1958) and Bowlby (1973) explained school refusal in terms of separation anxiety and insecure early attachment patterns of the child. Bowlby described school refusal as a pseudo-phobia and argued that it may be better understood as resulting from the absence or feared loss of an attachment figure. Thus fear and worry about the availability of the attachment figure may result in a child's staying home to monitor the parent closely. In reviewing the clinical literature involving treatment of these cases, Bowlby found substantial evidence for attachment disruptions in the families of pseudo-phobic children. Similarly, Bernstein (2001) argued that *'separation anxiety often is the precursor to school refusal, which occurs in approximately three fourths of children who present with separation anxiety disorder'*.

Although this perspective may appear initially appealing, it is to be viewed with caution. Pilkington and Piersel (1991), in a critical analysis of the separation anxiety theory as a reason for school refusal, noted that the theory has methodological problems, lacks generalisability concerning pathological mother-child relationships and lacks emphasis on external etiological variables. Pilkington et al recommend reexamining school refusal as normal avoidance reaction to an unpleasant, unsatisfying or hostile school environment. Stickney

(1998) confirmed this way of thinking. She argued that 2.3% of pupils were identified as school refusers for whom pursuit of more enjoyable activities, rather than anxiety, was identified as the reason for staying away from school.

If the separation anxiety hypothesis to explain school refusal were valid, it would be worth thinking that the PRU assumes the role of the overprotective carer/parent, rewarding the child's avoidance behaviour. The implication of this is to improve the school environment to make it more welcoming than the PRU and to reflect about the fact that there may be an unconscious motivation by the PRU to hang on to the child.

Motivational patterns in disaffected pupils

Pilkington's reference (op.cit.) to the school refusers' normal avoidance reaction to what he terms '*an unpleasant, unsatisfactory or hostile school environment*' was corroborated by Solomon and Rogers (2001), who investigated perceptions of the circumstances of pupils registered with PRUs. Views expressed by pupils and teachers in interviews and questionnaires led to the conclusion that the claim that disaffection experienced by these pupils is the result of a deficiency of motivational and coping strategies in school, rather than of an inappropriate curriculum. Solomon and Rogers argued that this was perhaps not best dealt with in 'out-of-school' contexts. The study was small-scale, but, again, it provides pointers that the main effort by all concerned, including the PRUs, is more effectively targeted at the pupils while still in mainstream rather than while placed in a segregated provision.

Social competence

Gresham and Elliott (1993) defined social competence as “...*those behaviours that occur in specific social situations which predict important social outcomes for children and youth. In most settings relevant for children, important social outcomes may include peer acceptance, significant others’ judgement of skills, academic achievement, positive feelings or self-worth and positive adaptation to school, home and community environments*’. According to Wentzel and Asher (1995), high levels of social competence and acceptance are associated with achievement in school. Conversely, low levels of competence are associated with, among other factors, truancy and discipline problems.

Learning styles

Rayner and Riding (1996) investigated the learning styles of 17 school refusers and found that the learning style of the refusers was skewed to the Wholist end of the Wholist-Analytic style dimension, i.e. that a particular learning style was associated with school refusal. Rayner and Riding called for further research into the learning characteristics of students who refuse school. This research would inform school response to refusal.

Research findings on within-child factors point in the direction of concentrating interventions on removing barriers in school rather than removing the pupils to off-site provision. The skill of the PRUs would be better used in working with the schools to increase emotional and academic skills of pupils while they are still in mainstream.

5.1.2 Within-family factors

Attachment patterns

One of the key factors mediating ease of separation of pupils and their carers/family is attachment. The study of attachment patterns provides important information of where to target any intervention. Attachment theory explores the relationships between infants and their carers and assesses the quality of early relationships.

A considerable body of research on attachment patterns is based on early work by Bowlby (1969). Studies investigated normal attachment patterns (Bowlby 1969, 1982) and the effects of loss of attachment figures on the individual (Bowlby, 1973). The key ideas of Bowlby's theory are that attachment is grounded in a behavioural-motivational control system whose goal is security and the notion that individuals construct internal working models of self and attachment figures that guide interpretation and production of behaviour.

Following on from Bowlby, Ainsworth and Wittig (1969) carried out extensive research into attachment patterns in a strange situation and classified these into three categories: 'secure, insecure avoidant and insecure ambivalent'. Further research by Egeland and Sroufe (1981) added another category of 'insecure-disorganised – disoriented'. Looking at this category Jacobovitz and Hazen (1999) found that infant disorganisation can lead to severe problems in social relations during the school years.

Similarly, Greenberg (1999) claimed that insecure attachment patterns interact significantly with 'high family adversity', 'ineffective parenting' and 'atypical child

characteristics' to increase the risk of 'maladaptive behaviour' in childhood, affecting the child's social relationships and social competence. As referred to previously, Bowlby argued that insecure attachment patterns and maternal depression may lead to school refusal.

Greenberg called for greater attention to the validation of attachment indices in early and middle childhood in order to predict pupils at risk. In addition, he called for more longitudinal studies of representative normal populations and high-risk populations to provide a fuller picture of the role of attachment in the risk of psychopathology. Such findings would enable the prevention of difficulties with separation and resulting avoidance behaviours and school refusal.

Disturbed family dynamics

Researchers investigating the family situations of school refusers found some evidence of disturbed family dynamics (Hersov, 1960a, Davidson, 1961). Hersov described the fathers as inadequate and half the mothers as over-indulgent. Davidson described the mothers as immature and dependent on the maternal grandmother. Other mediating factors in the home were illness or death of a family member or close friend, stress in the marriage or a move of house with loss of social support.

5.1.3 Within-school factors

Staff culture

Dalin (1993) described the culture of a school as 'what we experience' as "the way things are" in an organisation, the written and unwritten rules that regulate

behaviour, the stories and myths of what an organisation has achieved and the standards and values set for its members'. This may be contrasted with the official policies of the school. Argyris and Schon (1978) pointed out that organisations are well practised in defense routines when there is a possibility of a gap between their espoused theory and their theory-in-use being revealed. Most schools openly declare commitment to inclusion. However, experience from EP practice revealed that some schools provide passive resistance to re-integrating school refusers because they are too resource and time-consuming.

Teachers' attributions for difficult pupil behaviour

Croll and Moses (1985) asked 428 junior teachers in 61 schools to give their explanations for the special needs of children in their classes. Behaviour or discipline problems were seen in two-thirds of cases to be due to home factors, in a third to two-fifths to within-child factors and only two to four in a hundred cases to any school or teacher factors. This study points to the fact that a lot of work on attitude change of teachers has to be done, if barriers to learning are to be removed in school, in order to increase inclusion. The PRUs could play a role in this.

Communication systems

Many schools and in particular secondary schools, have different within school communication networks when dealing with children with difficulties. Whilst children with learning difficulties are usually dealt with by the Senco, children with behaviour difficulties, and school refusers in particular, are more often dealt with by the Pastoral Care system (Deputy Heads or Heads of Pastoral Care). The communication between the two systems is often limited. The

communication between the school and support agencies can be similarly confused and duplicated. Outside agencies such as the PRUs jointly with the EPS could contribute towards a clarification of roles in a whole school initiative.

5.1.4 Within-PRU factors

Staff skills and knowledge of intervention strategies

King et al (1996), reviewing the literature on the behavioural treatment of anxiety and school refusal concluded that *'more controlled research is urgently required before it may be confidently asserted that behavioural treatment is effective'*. This view contrasts findings by Blagg & Yule (1984), comparing three different treatments for school refusers, that hospitalised and home tuition groups were less successful in returning to school than the group, which had received behaviour therapy. King et al. (1998) claimed that cognitive-behavioural approaches (CBT) can work with anxious children and adolescents. However, they found that controlled evaluations employing CBT with school refusers are rare. One of the factors of the PRUs' effectiveness would be their level of intervention skills and access to training and knowledge of intervention strategies that work with school refusers. The PRUs could contribute to controlled multi-agency research to develop effective strategies.

5.1.5 Educational climate

Hanko (1990) argued that *'an excessive 'result-centered' teaching climate has severely reduced teachers' opportunities to attend to the emotional and social factors which profoundly affect all children's learning'*. This view supports the need to focus on improving the learning climate in schools rather than to remove emotionally and socially vulnerable children to other provision.

5.2 A summary of some of the key factors mediating the role of the PRUs in the inclusion of school refusers.

The key factors identified in the literature search and listed in the matrix were within-child factors such as separation anxiety, social competence and motivation of the pupil, within family-factors such as attachment patterns and family dynamics. These factors interact with within-school factors such as educational climate, staff cultures, teacher attributions and with within-PRU factors, in particular skills and attitudes of PRU staff.

The variety of interactive factors addressed illustrates the complexity of the picture and calls for a response addressing child, family and context in a preventative way, while searching for the most effective evidence based solutions.

6. An integration of research and practice

6.1 'Annie' – an illuminative case study

This case study was referred to earlier in this assignment and is described in Appendix 3. It was aiming to trial the checklist developed by the local PRU project and to illustrate the role of the PRU in promoting inclusion of one school refuser.

6.2 Common themes emerging from research and practice regarding the role of the PRUs in the inclusion of school refusers

One of themes running through research evidence and practice is that of lack of attention to, even of neglect of the needs of school refusers, while increasing emphasis is given to acting out and excluded pupils. The literature search yielded no empirical studies regarding the topic. This fact was repeatedly referred to in the literature and emphasised by Elliott (1999) in his 'Practitioner Review' on school refusal. Elliott identified no published research on the effectiveness of pupil referral units with school refusers. No additional empirical research on the topic could be located since then. There is a gap in research, policy and practice regarding provision to meet the needs of school refusers. There is also a gap in research looking at prevention, as Burke (1987) had stated previously. Burke concluded that *'although there is much research on the diagnosis and treatment of school refusal, less research has been directed toward identifying variables that predict school refusers' response to treatment'*.

Similarly, in spite of strengthening the role of the PRUs in providing full-time education for excluded pupils, Government legislation and initiatives fail to explicitly mention school refusers. The 'Social Inclusion: Pupil Support'

document (DFEE, 1999), makes no reference to school refusers. LEAs do not explicitly mention the needs of school refusers either. The LEA Behaviour Support Plan talks about the need to improve attendance, but does not specially refer to school refusers either.

Another common theme regarding the role of PRUs is the focus and concentration of resources on excluded pupils. This fails to take account of research findings such as Castle's (2001) evaluation of British projects involving off-site Pupil Referral Units. As referred to in the literature review, Castle identified school staff, administrator and parent involvement, student self-monitoring, flexibility and good communication systems as common features of successful schools.

6.3 Psychological factors at play in Annie's case highlighted with the help

of the taxonomy

| Key factors in Annie's case | |
|---|--|
| <p>Within child factors Emotional factors High anxiety: separation anxiety and social anxiety Insecure attachment</p> <p>Longstanding avoidance behaviour which was rewarded by continued attendance at the PRU Poor social skills Poor self-esteem Learning/language difficulties Lack of assertiveness Poor motivation to return to school in spite of what Annie said)(denial) Life and educational experiences</p> | <p>Within family factors</p> <p><u>Family composition: close-knit family and extended family</u></p> <p><u>Family mental health:</u> Maternal depression influencing Attachment patterns Disturbed family patterns: divorce High family stress: emotional and economical Family culture Parenting style: overprotective Parents' school experiences: Annie's mother had not liked school Lack of mobility(transport)</p> |
| <p>Within school factors Size (the school was relatively large) Peer pressures Curriculum</p> | <p>Within PRU factors Group size and amount of individual adult support Avoidance behaviour rewarded PRU as reference group for Annie, rather than the school Family influences (cousins in PRU) Focus on key factors misdirected and informing assessment and inappropriate treatment?</p> |

6.4 Some conclusions from the case study – why did the intervention not work?

The evidence from this single case study is anecdotal and needs to be viewed with some caution. A re-examination of the psychological factors mediating Annie's school refusal may be helpful in explaining why the PRU was not able to help Annie get herself back to mainstream school.

A useful way of examining these factors would be within a framework put forward by Frederickson and Cline (2002) as an approach to understanding emotional and behavioural difficulties in general, which may help to understand Annie's difficulties in particular. Frederickson and Cline advocated a multi-level approach to understanding emotional and behavioural difficulties. This interactive framework (IF), which is based on the work of Morton and Frith (1992), uses three levels of description to explain developmental problems: the biological level, the cognitive level and the behavioural level, as well as the operation of environmental factors at all three levels. Frederickson and Cline list some of the major theoretical approaches that have been developed to understand emotional and behaviour difficulties as behavioural theory, cognitive theory, psychodynamic theory and systemic theory.

An analysis of Annie's difficulties in the light of these theoretical approaches may have identified some reasons why all the effort of the PRU, supported by a multi-agency team, failed to solve Annie's problem. As it was, the problem analysis and intervention were focussing mainly on school factors. Annie's mainstream school appeared committed to having her back. However the dynamics and close-knit relationships of Annie's family worked against her return to school from the start.

The information about the background of Annie's extended family, gleaned mainly by the Education Welfare Officer, pointed towards a history of insecure and disorganised attachment patterns over several generations, leading to separation anxiety. This had been reinforced by considerable family stress. The

elusive nature of Annie's mother, who repeatedly failed appointments, may well be explained by this insecure familial pattern and by the anxiety of being confronted with a hostile outside world. It would have been more productive to look at Annie's difficulties in the light of the IF framework with emphasis on the psychoanalytical perspective and attachment theory.

The psychoanalytical approach, which is a developmental approach, would have paid more attention to how the patterns of behaviour of at least two generations of Annie's family developed. It would also have drawn attention to the fact that this approach applies not only to pupils and families, but also to teachers and carers, in this case the staff of the PRU.

In Annie's particular case and in the case of her chronically school-refusing cousins, the supportive approach from the PRU, may, in fact, have represented a collusion with this family, reinforcing insecure and avoidant attachment patterns. Annie's family had a culture of non-attendance, which spanned several generations. The conclusion of a psycho-analytical perspective would have been to focus any intervention more on Annie's family and home circumstances, involving the Child and Adolescent Mental Health Team. Unfortunately, due to a shortage in resources and time pressures, links with the Child and Adolescent Mental Health Team were restricted.

The lack of progress of the programme clearly demonstrates the time- and resource-consuming nature of support to chronic school refusers and their families, once they are stuck in an avoidance situation, which is vicariously reinforcing. It highlights the importance of a thorough assessment and analysis

of people and context and best-fit strategies in a truly multi-disciplinary setting, which is informed by openness to alternative psychological explanations, looking at the totality of home and school factors, before launching into any intervention. This conclusion is confirmed by Burke et al. (1987), that, '*although there is much research on the diagnosis and treatment of school refusal, less research has been directed toward identifying variables that predict school refusers' response to treatment*'. Burke et al. noted that a few controlled single case studies, using functional analysis to determine the content of behavioural treatment were carried out, but the tendency had been to treat all cases similarly. This may have happened in Annie's case, although it was a useful learning exercise for the support professionals involved.

6.5 Evaluation of the usefulness of the project checklist

When comparing the project checklist with the matrix of psychological factors, it becomes evident, that this checklist, although a useful beginning, was not comprehensive enough. However, discussion of the checklist by the project team helped to highlight some of the systemic constraints affecting the inclusion of school refusers and pointed to ways forward. Some of the constraints identified were as follows:

Outreach referrals from mainstream schools come too late – more preventative work is needed in the school setting. This could be done in multi-agency teamwork with EPs and EWOs who are able to predict pupils at risk of refusal from attendance patterns at a very early stage. This approach used before a chronic stage of refusal is reached and involving the Child and Mental Health Services as well as behaviour support services could prevent more entrenched difficulties.

The checklist was considered to be useful as a structure for interviews to discuss with pupils, parents and schools and to allow services to discuss the rationale for particular actions in a transparent way. It was also thought to be a potentially useful a tool to challenge parents, the young person or the school over particular issues which may be causing a block for the young person returning to school.

6.6 What was the contribution of the EPs that added value to the project?

In their evaluation of the EP input PRU staff commented positively about the facilitating role of the EPs, which had provided consultation about the planning and development of the project, providing a psychological perspective. In addition the PRU appreciated information sharing regarding useful strategies for assessment and intervention for school refusal and introducing cognitive behavioural approaches. The PRU staff welcomed the support and encouragement offered by the EPs in a very entrenched case as well as the joint analysis of the positive outcomes and learning points of the project. The checklist was felt to be helpful as a tool for assessing reintegration readiness of children with other types of difficulty, with potential for further development. The use of the checklist could be still further extended by using it as a tool to evaluate the effectiveness of PRU interventions, including entry and exit criteria for a wider range of pupils with emotional and behaviour difficulties. Consistent admission criteria and clear performance indicators for the PRUs across the LEA are lacking at present.

The matrix listed in this assignment will be helpful in fine-tuning the project checklist. It can then be trialled with all the County PRUs, with the behaviour support team and with the EPS. This would extend the work with one pupil to a larger sample and provide more objective and more general evidence.

7. Discussion

Although they need to be viewed with reservations, the findings from the local project agree remarkably with Elliott's conclusions (op.cit.) that individually tailored programmes, utilising a range of approaches, rather than off-the-peg treatments are likely to prove successful with the inclusion of school refusers. Elliott advocates an approach focusing upon the functions rather than the symptoms, of school refusal. This fits in with the emphasis on the psychological factors mediating the school refusal, advocated in this assignment. The function, in Annie's case was to keep her at the PRU. As well as analysing the individual needs of Annie and her family, a systemic analysis of the PRU's functioning is needed, to investigate the way the PRU feeds into reinforcing pupils' avoidance behaviour and motivation to remain excluded from mainstream.

The case study highlighted the fact that unlimited placement in a PRU type educational provision can be counterproductive and a hindrance to inclusion. One other reason why this could be so, can be found in behavioural psychology and the nature of avoidance behaviour being a reinforcer to refusal by leading to a temporary reduction to anxiety. It also fits closely with Blagg and Yule's findings (op.cit.)

8. Conclusions

What have we learnt from this assignment?

The Matrix of interactive factors mediating school refusal illustrated that it is a complex problem. Any assessment and intervention needs to address a majority of these factors in order to be effective. An examination of the PRUs' role as illustrated by a illuminative case study in promoting the inclusion of school refusers demonstrated that, unless key mediating factors are addressed, which include the home, intervention by placement at the PRU is more likely to hinder than to promote the inclusion of school refusers.

The scant research available on the topic points to the fact that school refusers' difficulties are better addressed in a mainstream setting with the PRU offering outreach support. The literature highlights the fact that an off-site focus of meeting the needs of emotionally and socially vulnerable pupils may not be effective.

An examination of central and local government policies and initiatives concludes that little attention is paid to these research findings.

It is the conclusion of this assignment that the common overriding theme running through research, policy and practice is the absence of any explicit reference to the needs of school refusers in relation to the PRUs inspite of the fact that school refusers constitute a substantial minority of the pupil population in many of them.

What we have learned is not entirely surprising. Chronic school refusers are a group of the school population whose needs are difficult and resource-expensive to meet. Many mainstream schools are not keen to have them back for this very reason. The role allocated to the PRUs by the most recent government policies makes it easier for the mainstream schools to eschew their responsibilities for this group of pupils and to shift the problem away from themselves.

This assignment highlighted some ways in which the chronicity of school refusers' behaviour could be prevented by examining a wider range of psychological perspectives to inform intervention and by involving the PRUs in a different role. In addition to working with the focus pupils in their mainstream schools, as recommended in the literature, the most effective prevention would be to work closely with their homes.

9. Recommendations

9.1 PRU contribution to staff training

One of the roles of the PRU could therefore be to provide more staff development of mainstream teachers and LSAs, targeting the whole school, sharing their expertise in meeting the needs of school refusers. This training should include training of staff in behaviour management, including the management of anxiety and anger. This training could be delivered jointly with other agencies such as the EPS the EWS and the Child and Mental Health Team.

9.2 Close multi-disciplinary cooperation

To take account of all the interactive factors mediating the inclusion of school refusers, both assessment and intervention strategies have to be carried out by a multi-agency team of which the PRUs would be a member.

9.3 Outreach support of mainstream pupils by the PRUs

Knowledge derived from behavioural psychology and the way avoidance behaviour reduces anxiety and thus further reinforces this behaviour, strongly point to the need for preventative and diffusing strategies and support to potential school refusers before their refusal becomes entrenched. The Educational Welfare Service is experienced in predicting future school refusal from pupils' attendance patterns at a very early age. More research has to be directed towards identifying other variables that predict school refusers (Burke et al, 1987). The framework of attachment theory would be helpful in the early identification of home factors leading to potential later avoidance behaviours.

9.4 PRU participation in multi-disciplinary research

PRUs could be part of research teams examining their own role in the inclusion of school refusers. This research needs to be evidence based. Research on inclusion suggests that a lack of training opportunities to assist teacher style and performance increases the need to move children with emotional and behavioural difficulties to less inclusive settings (Cole, 1998). This point links with recommendation 9.1. In the wake of the 'Social Inclusion: Pupil Support' document (op.cit) PRUs are assuming more importance and LEAs are devoting considerable sums of money to expanding their facilities. In order to spend this money effectively, more systematic planning based on empirical research is needed. We need to scientifically evaluate what PRUs do. Base-line and value added measures need to be established to avoid mistakes made in the past, as commented on by Garner (op.cit) in his review of off-site provision. It may be that this view runs counter to present trends and recommendations by the Government that PRU's provide 'full-time' supervised education of an average of 25 hours a week for pupils excluded from mainstream. These recommendations do not specifically mention school refusers, but presumably the 25 hours apply to them as well. One of the conclusions of this assignment is that this approach is post-hoc and lacks vision, since it uses the PRUs as alternative mini-schools, responding and entrenching a pupil's crisis situation. The problem is shifted, but not solved. A more effective role of the PRUs would be to support the pupils to develop emotional literacy and to learn to self-manage anxiety in a mainstream setting.

9.5 Clarification of the PRUs role

Clarification is needed regarding the PRUs' relationships and boundaries with the other support services, including behaviour support teams, the Educational Welfare Service, the Educational Psychology Service and the recently created In-School Centres. These roles need to be informed by quality short and long-term research rather than by trends and assumptions. These issues need to be considered in the context of increasing inclusion of pupils with emotional and behaviour difficulties, and therefore, more support needed by mainstream schools. As repeatedly stated in this assignment, very little research involving scientific designs and methods on the role and effectiveness of the PRUs, either short or long-term could be located. The PRUs' contribution to meeting the needs of school refusers remains, as yet, unclear.

10. Limitations of this assignment

The focus of this assignment is on a specific aspect, i.e. its role in promoting inclusion of school refusers of one particular PRU. The role of the PRUs in meeting the needs of excluded pupils would go beyond the scope of the assignment and is touched upon only in relation to the needs of school refusers. The focus of the assignment on school refusers is needed, since they are a neglected minority of the school population who often falls through the loophole of provision. In addition the assignment is limited to a local perspective and uses a single case study for 'illumination'. For these reasons the conclusions of the assignment are generalisable only to a certain extent. However, they are meant to animate and trigger debate and research on the topic. The assignment also invites reflection on the fact that official trends in educational provision

need to be examined critically in the light of psychological, evidence based knowledge and practice, in order to avoid yesterday's mistakes.

The assignment investigated the role of the PRUs as one particular support agency whose role could be to help or hinder the inclusion of school refusers. The assignment concludes that practice in one particular local PRU was more of a hindrance than help. The implications of this conclusion for the role of the PRUs in meeting the needs of other groups of pupils with emotional and behaviour difficulties such as acting-out pupils excluded from mainstream, remain to be considered.

11. Acknowledgements

Acknowledgement is due to my EP colleagues Julia Clark and Susan Birch who were part of the local project and who helped develop the checklist and questionnaires.

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13. Appendices

Appendix 1. Questionnaire exploring the role of the PRUs and mainstream schools in re-integration and summary of responses.

Appendix 2. Checklist for re-integration

Appendix 3. 'Annie' – an illuminative case study

The Role of the Pupil Referral Unit in Promoting Inclusion

Below is a summary of the responses to the Questionnaires completed in December 1999. Figures in brackets indicate the number of responses where more than one person expressed this view. Where no figure is indicated, only one person expressed this view.

16 completed questionnaires were received from staff and 31 were received from pupils.

| | Staff | Pupils |
|--|---|---|
| <p>What does the P.R.U offer which makes it a good place to be and which, perhaps, mainstream schools do not provide?</p> | <ul style="list-style-type: none"> • Smaller groups sizes or individual approach for academic work (7) • Smaller building and less formal routine, pleasant ambience (2) • More mature relationship between pupil and between pupils and staff (4) • Security and mutual trust (4) • Good liaison re work experience placement • Pupils have easier access to staff and more time to discuss problems (9) • Friendliness, care and understanding (2) • More intimate environment where issues can be dealt with sensitively and quickly (2) • Flexible curricular approach – more appropriate targeting of work, number of sessions etc. (7) • Positive approach to individual needs (5) • Less pressure and confrontation • Opportunity to employ specialist tutors on temporary basis, e.g. basic skills or access to higher education • Careful induction and assessment – customised timetable with realistic expectations (2) • Close monitoring and evaluation – speed of response in developing difficult circumstances (2) • Close links with outside provision • Control of peer groups to avoid conflicts • Individual or group problem-solving “on demand” (2) • Wide range of types of courses and qualifications | <ul style="list-style-type: none"> • More relaxed environment (5) • One to one tutoring (5) • You get treated like an adult (3) • Staff listen to your opinions (2) • Staff get to know the students and their individual needs (7) • More flexible • Small classes (10) • No homework (2) • No detentions (3) • No uniform (9) • You can have a fag (Off-site only!!) (5) • Other equipment, e.g. computers (2) • Half days and less time in school (6) • Freedom (2) • Hot drinks and biscuits (5) • Free lunch • Respect • Less pressure to get work done (2) • Chance to catch up on work (3) • Refund on bus fare • More choice about what you do • Well-disciplined |
| <p>What does the P.R.U. not do?</p> | <ul style="list-style-type: none"> • Lack of social opportunities cf. mainstream (3) | <ul style="list-style-type: none"> • They cannot offer full-time education (3) |

Appendix

| | | |
|--|--|---|
| | <ul style="list-style-type: none"> • Does not help pupils confront situations which occur in large groups • No full-time education (5) • Lack of range of lunchtime / after school clubs (3) • No anonymity – pupils are ‘high profile’ all of the time • Does not impose undue pressure re academic achievement • Punish pupils • Make pupils feel small, inadequate or failures • Set students up to fail • Allow students to “sink or swim” • Unable to offer a full curriculum (7) • It can become too comfortable for pupils returning to mainstream school | <ul style="list-style-type: none"> • You cannot attend for as long, but you get more work done when you are there as classes are smaller • You can’t get as many GCSE’s • Lack of breaktime • Less social life as less people (3) • Less school hours in which to learn • Say “no” when you ask to go to the toilet • Detentions (6) • Canteen (2) • Label us • Drama P.E., R.E., P.S.E. and Games (6) • Can’t hold you back after school • Have a go at you – teachers don’t swear at you or shout across the classroom (2) • Homework – too much work, not enough time in school |
| <p>What can a mainstream school do to help a pupil return after being in the PRU?</p> | <ul style="list-style-type: none"> • Well-planned and gradual re-integration plan, monitored (5) • Good identified mentors – for staff and pupils (9) • Mutual contracts are essential • Buddy to support the pupils within and outside class • Form tutor to support with organisation, homework, timetables etc • Opportunities to visit a “counsellor” in order to offload • Pupils views should be listened to (3) • School needs to have consistent expectations, sanctions, rewards and classroom ethos • Assist pupil in translating good behaviours into a larger setting • Regular liaison with parents and other agencies (2) • More one-to-one help • Flexibility in time-tabling issues (2) • Fresh start • Treat them the same as everyone else • Positive discrimination by all staff | <ul style="list-style-type: none"> • Let pupils return to school gradually when they feel ready (6) • Not give me hassle • The HOY should fully inform your tutors and other pupils of your situation before you return • Don’t make you feel different to everyone else • Someone you can talk to and somewhere you can go if everything gets too much to cope with • Start by giving you a class helper to help you with your work (2) • Not put us in with people who will distract us • Put you in a class where you don’t know anyone so there aren’t as many questions and people don’t know where you’ve been • Smaller classes (2) • Not label people (3) • Treat you with respect and not pre-judge you (2) • Nothing (4) • Make the lessons more interesting |
| <p>What in</p> | | |

Appendix

| | | |
|--|--|--|
| <p>mainstream school makes it difficult for the pupil to return?</p> | <ul style="list-style-type: none"> • Rigid timetable • Length of day • Rules – e.g. uniform • Size of the school and number of pupils (6) • Lack of available adults for support • Inflexibility of timetable • Noisy atmosphere • Disruptive peers • Curriculum demands and lack of interest (4) • Inability to appear to be treating some students differently • Regarded by staff and pupils as different (2) • Friendships already set up and therefore difficult to enter • If new school – unaware of the geography and timetable of the school • If old school – old anxieties, habits and reputation (5) • Lack of interest of teachers in working with vulnerable young people • Bullying (2) • Pupils find it difficult to control their temper • Different teachers – different demands and expectations – inconsistencies can be difficult to deal with (5) • School not taking ownership | <ul style="list-style-type: none"> • Larger environment (7) • The way staff speak to you (7) • More stressful environment (2) • Returning to a full day of school (3) • New people • Too many different teachers • You have to work harder (2) • Teachers are stricter (2) • More people in a class (4) • The Headteacher that expelled you • Bullying (2) • It's boring (2) • Larger classes, because you have to wait longer until everyone understands the work and it's harder to get help (2) • Questions about you last school • Lack of trust • Getting up early • They don't want you • You can't get time out when you feel angry |
| <p>What specific skills do you think PRU staff offer which mainstream staff do not?</p> | <ul style="list-style-type: none"> • Confidence in working with children in difficulty and with EBD (3) • More individual focus (2) • Staff do not take aggressive behaviour personally (2) • The ability to step outside the box • Tolerance (3) • Counselling • Listening (2) • Time (2) • Sense of humour (2) • Flexibility (3) • Willingness to compromise • Ability to set firm, consistent boundaries • Ability to set appropriate academic and social targets • Emphasis on improving the self-esteem of pupils • Experienced in multi-agency working | |
| <p>Can you identify specific constraints to your work?</p> | <ul style="list-style-type: none"> • Transport to appropriate school • Lack of key workers in mainstream schools • Lack of time (2) • Lack of staff | |

Appendix

| | | |
|--|---|--|
| | <ul style="list-style-type: none">• Access to EWS• Lack of willingness of mainstream schools to re-integrate, especially previously excluded pupils• Lack of incentives for mainstream schools to provide necessary resources for successful re-integration• Lack of knowledge of systems operating in mainstream schools• Late referrals, e.g. year 11• Limited science equipment• Difficult to operate group work with <6 pupils• Balance between the need to educate academically and the student's need to self-educate socially / psychologically• Pupil attendance patterns can be erratic | |
|--|---|--|

Appendix 2 – Assignment 2 – The role of the PRUs in promoting the inclusion of school refusers; help or hindrance

Checklist for Re-integration – suggested factors: Senco, The Wycombe Grange + EPS suggestions

| | Factors | Evidence | Open to Change? | Actions and Strategies |
|---------------------|--|---|------------------------|--|
| Within Child | <u>Affective</u> Life Experiences / Trauma Anxious Depressed Angry Fear - of failure, groups, individuals Self-esteem Motivation / commitment Educational experiences to date | Self-report Reports from others Observations Rating scales Questionnaires | | <ul style="list-style-type: none"> ▪ Cognitive Behavioural Therapy ▪ Evidence based intervention ▪ Setting own targets ▪ Self monitoring (eg of progress in learning) ▪ Other |
| | <u>Cognitive</u> Potential Level of functioning / Predicted grades Specific Difficulties / Special Needs Strengths & Interests Language ability Learning Style | Standardised tests Evidence from other agencies (eg SALT) | | |
| | <u>Behavioural</u> Social Skills / Interaction with adults & peers, including communication Attention-seeking Escape / work avoidance Response to rules / authority Bully / victim Specific condition (eg ADD) Control – locus, means of i.e. helplessness, domination, manipulation | | | |
| | <u>Medical</u> Physical / Mental – symptoms, medication | | | |

| | Factors | Evidence | Open to Change? | Actions and Strategies |
|---------------|--|---|-----------------|---|
| Family | <p><u>Attitude to Education</u></p> <ul style="list-style-type: none"> • High expectation, pressure or support • Low / Lack of expectation – negativity, disinterest, irrelevance • Parental experience of school • Culture and community • Commitment to return <p><u>Incentive to keep at home</u></p> <ul style="list-style-type: none"> • pupil care role • financial reward (work) • protective / anxious <p><u>Other</u></p> <p>Relationships – parents, sibs Trauma Dysfunctional / chaotic Parenting Style – lacking, inappropriate, severe, inconsistent, flexibility Life stress factors Adult mental health Family composition</p> | <p>Structured Interviews</p> <p>Observation</p> <p>Questionnaires</p> | | <ul style="list-style-type: none"> ▪ Home visits (school and/or support agencies) ▪ Work with the family; reframing ideas ▪ Providing information about alternative support networks (eg respite care) ▪ Referral to Child and Adolescent Mental Health Service |

| | Factors | Evidence | Open to Change? | Actions and Strategies |
|---------------|---|---|-----------------|--|
| School | Teachers expectations and flexibility Curriculum / teaching styles & methods Facilities / resources Pupils / peers Support systems for • learning • pastoral • discipline • whole school policies • in-school communication • parents support Mentor Buildings – size etc School day – in class, breaks, between lessons Commitment to return and general ethos | Knowledge of the school Discussion with other agencies | | <ul style="list-style-type: none"> ▪ INSET ▪ Disapplication from particular NC subjects ▪ Consideration at a whole school/ subject/ classroom level ▪ Buddy systems ▪ Peer Mediation ▪ Mentors ▪ Support for learning difficulties ▪ Circle of Friends |

Assignment 2 – Paula Astrid Gregor

Title: The role of the Pupil Referral Units (PRUs) in promoting the inclusion of school refusers; help or hindrance?

Appendix 3 – ‘Annie’ – an illuminative case study.

Background

Annie was a year nine pupil in a local secondary school. She had a longstanding history of school refusal, and her family was on the brink of being prosecuted for non-attendance by the Education Welfare Service. Annie was placed at the PRU.

Annie came from a split family and her parents were reported to be very negative with each other. Annie lived with her mother who was very stressed and suffered from depression. Annie's brother lived with his father in a different county town. Annie started school refusing in early secondary school. Members of the PRU staff carried out a learning assessment of Annie and identified masked learning difficulty such as a specific difficulty with comprehension. With the educational psychologists acting as consultants, PRU staff used a cognitive-behavioural approach to explore Annie's goals, motivation, anxieties and perceptions of mainstream school and notions of return. They found that Annie did not like school and that she was not very good at expressing her feelings. She had been happy in primary school, but when her Dad left, the whole family had been shattered. Annie's father was not able to read and apparently, had a very bad school experience. Annie was part of a close-knit extended family who had a culture of non-attendance. Her two

cousins were also at the PRU and resisted attempts at re-integration, since, supported by their parents, they wanted to stay at the PRU until the end of their school days.

However, PRU staff felt that Annie was ready for re-integration. A re-integration planning meeting was held for her at the PRU which was attended by the Deputy Head/Senco of the mainstream school, by a senior teacher, the Senco and the outreach team leader from the PRU, by the EWO and by one of the project EPs.

The outcome of this meeting was a meticulously planned re-integration programme for Annie, which established that all concerned including Annie wished her to return to school. The PRU identified that Annie needed some support in lessons to enable her to access the curriculum. Annie had found school a big and crowded environment and her absences from school had increased over time.

The roles of the participants were identified. The efforts of Annie's school, coordinated by the Senco, would be to check the current Year 9 timetable and to identify the best English group in which to place Annie, to identify a 'buddy' for Annie within the group as well as a mentor and to make staff aware of Annie's inclusion plan and needs.

The role of the PRU was for the Learning Support Assistant to take Annie to school, and to support Annie during the re-integration as well as to further explore Annie's motivation and goals.

The role of Annie's mother was to be prepared to transport Annie to school.

The EWS and the EPS were to support Annie and her mother in their efforts to get back to school and to act as consultants to PRU staff.

Progress of Annie's re-integration programme

Repeated planning meetings of the project team supporting Annie that adjustments were needed to the time-table to deal with set-backs. These setbacks were due to the fact that Annie had stayed with one of her cousins who was a recalcitrant school refuser, also placed at the PRU. According to her Mum Annie had been crying all morning. It transpired that there were also transport problems for Annie's Mum.

A further progress meeting noted that Annie had no school uniform and did not go to lessons. The meeting also noted that Annie's language difficulties contributed to the fact that she found a mainstream environment threatening. These difficulties needed to be addressed and Annie's mother welcomed a referral for an assessment by a Speech and Language Therapist.

A meeting with Annie's mother was planned, since it was felt that resistance to change rested mainly with her and it was felt important to engage her.

However, Annie's mother did not turn up for the interview. Annie started to avoid even the PRU, since the integration programme caused so much anxiety. For this reason the reintegration into mainstream was abandoned and effort was put into getting Annie at least to attend the PRU.

In spite of a thoughtful re-inclusion programme involving the PRU supported by a multi-agency team Annie is still out of school.



University College London

**Continuing Professional Development
Doctorate in Educational Psychology**

PROFESSIONAL PRACTICE ASSIGNMENTS

Submission for Examination

Name: Paula Astrid Gregor

Number and title of Assignment: Assignment No 3

Title: Gender and Achievement in Schools

**Section of the BPS Core Curriculum for Professional Training
in Educational Psychology to which this assignment relates:**

1 Assessment and Intervention

**1.2.1 Psychological theory and research that underpins our
understanding of child and adolescent development – the
effect of gender differences on learning and achievement.**

Submission Statement

I confirm that:

- 1. This submitted assignment is my own work; and**
- 2. I have read and acted upon the guidelines for avoiding
plagiarism contained in the DEdPsy Handbook**

Course Members Signature:

PA Gregor

Date:

7.4.02

Consent Statement (optional)

**I authorise the Department of Psychology to make a copy
of this assignment available for public reference at the
discretion of the Course Director.**

**(Please note that copies of examined work may be
retained for up to five years for University quality
assurance purposes).**

Course Members Signature:.....

PA Gregor

Date:.....

7.4.02



University College London

Doctoral Programme for Practising
Educational Psychologists
(DEdPsy)

Professional Practice Assignment

Submitted in part fulfillment of the
requirements for the Continuing
Professional Development Doctorate in
Educational Psychology (DEdPsy)

**Name of Course Member: Paula Astrid
Gregor**

**Title of Assignment: Gender and
Achievement in Schools**

Assignment Number: 3

**Core Curriculum area to which this assignment
topic relates:**

**1. Assessment and Intervention
1.2.1 Psychological theory and research that
underpins our understanding of child and
adolescent development – the effect of gender
differences on learning and achievement.**

Date submitted: April 2002

Signed: *P. A. Gregor*

Table of Contents

1. Introduction

2. Aims and Objectives

3. Summary

4. Clarifying the Context

5. The Research Perspective

6. Gender and Achievement – an Interactive Factors Model

7. Integration of Context and Research Issues

8. Some final points

9. References

Title: Gender and Achievement in Schools

1. Introduction

'The obstinate following of attributing boys' deficiencies to girls' achievements is a ridiculous overreaction to less than 1% of girls out-performing boys at A-level last year. The spurious contrasts wilfully obscure the significant diversities in boys' achievements along class and ethnic divisions...'

This deliberately provocative statement by Lynne Segal, Anniversary Professor of Psychology and Gender at Birkbeck College, appeared in Guardian Education' (January 2001).

Segal's challenge was directed at what she saw as the excessive public attention and concern focussed on the increasing gap in achievement between boys and girls which appears to be mainly negative, biased and directed at boys' failure rather than at girls' achievements'. Widely publicised press statements have implicated gender as one of the main factors responsible for the increasing gap in academic performance between some groups of pupils and others.

2. Aims and Objectives

The goal of this assignment is to examine the role of gender in influencing achievement and the explanations for the recent changes in boys' and girls' school performance by looking at available research evidence and current practice.

A further aim of the assignment is to examine the implications and to formulate some recommendations for future policy and practice for LEAs, schools and educational psychology services.

3. Summary

The assignment is organised in 9 sections. Section one illustrates the facts about gender and achievement and the following sections examine the explanations given for the 'gap' in achievement with reference to psychological theory and research evidence. The final sections examine the role of LEAs and schools as well as the contribution of educational psychology to improving the performance of all pupils by developing a sensitivity to gender differences and their effects on learning and achievement.

4. Clarifying the Context

4.1 Similarities and differences in educational performance – some facts

In 'Recent Research on Gender and Educational Performance' – OFSTED Review on Research, (1998), Arnot et al provide an overview of research on gender and education undertaken after 1988. The Review states that '*presenting the debate merely in terms of boys' and girls' performance, the complex reality of young people's worlds is over-simplified*', (an echo of Segal's comments). However, the Review does confirm the widening 'gap' in performance of boys and girls, according to the traditional criterion for monitoring the school system, which has been the proportion of pupils achieving five or more A* to C grades in the GCSE examinations at 16-plus.

4.2 The key stage evidence

The evidence from national testing and assessment at various key stages of the National Curriculum identifies a gap in Reading or English between boys and girls as early as Key Stage 1 (age seven), which gradually widens through the later key stages, as Tables 1 – 3 (overleaf) demonstrate:

Table 1 – Key Stage 1 1998 National Curriculum Assessment results

Overview of % of pupils at Level 2 and above in England.

| | Teacher assessment | |
|------------------------|--------------------|-------|
| | Boys | Girls |
| English | 76 | 81 |
| Speaking and listening | 80 | 83 |
| Reading | 76 | 81 |
| Writing | 76 | 79 |
| Mathematics | 83 | 85 |
| Science | 85 | 86 |

Source:QCA

Table 2 – Key Stage 2 1998 National Curriculum statutory tests:

Overview of % of pupils at level 4 and above in England

| | Tests | |
|-------------|-------|-------|
| | Boys | Girls |
| English | 57 | 73 |
| Mathematics | 59 | 58 |
| Science | 70 | 69 |

Source: QCA

Table 3 – Key Stage 3 1998 National Curriculum statutory tests

Overview of % of pupils at level 5 and above in England

| | Tests | |
|-------------|-------|-------|
| | Boys | Girls |
| English | 57 | 73 |
| Mathematics | 60 | 60 |
| Science | 81 | 80 |

Source: QCA

National performance in GCSE examinations in the core subjects (five or more higher grade passes) shows an increasing gap between boys and girls in English.

In Science and Mathematics boys' performance was more similar.

Whilst boys used to do better than girls when it came to higher education, for the first time female students outnumbered male students in the first-class degrees gained at university in the 2000 degree results, having outperformed male students at A-level.

4.3 The local context

Anecdotal evidence filtering through in local EP practice registers signs of concern and increasing, although seemingly fragmented, action from schools about boys' relative under-achievement. Concern is being voiced particularly by several small primary schools about classes in KS1, with a majority of boys, as well as about the effect of the literacy/numeracy hour on boys' learning. The teachers felt that most boys' learning style was more active and their concentration span shorter than girls' and for this reason the numeracy and particularly the literacy hour were, at times, difficult to manage.

The outcome of consultation with the schools' link EP on this topic was a first of a series of staff development sessions on 'raising boys' achievement' with a small local primary school in the Spring Term of 2002. The format of this session was a joint observation/audit of learning and classroom management of pupils (both boys and girls) across the school by the link EP, helped by an Assistant Educational Psychologist. An analysis of the observed data fed into a development session with the whole school staff. The session addressed findings and provided input on current theory and practice concerning the effects of gender on learning. The observation demonstrated that, in classroom discussions on the mat, the participation of boys and girls asking and answering questions appeared to depend on the gender balance and composition of the class rather than on gender per se. In the 'early years' class (5 year olds), with a majority of girls (ratio 3:1), girls put their hand up more often, whilst in Years 1 and 2, with a majority of boys, (ratio 3:1), the boys put their hand up more often. The class teachers differentially encouraged girls or boys to participate in the discussion by calling on the less assertive children in each class relatively more readily, and by asking individual children, who appeared to dominate the conversation to wait.

These findings are small scale and anecdotal, but they highlight the importance of gender balance in the classroom.

Girls do not always do better than boys in local schools. Discussions with the Head of a large, mixed, local grammar school revealed that in his school boys had done as well as girls in the GCSE examinations (2000 and 2001). It is worth noting that this school has a relative majority of girls in most classes, thus contradicting the findings of the Primary School observation reported previously.

These splinters of information point to the fact that the topic of gender and achievement is in the air and awareness about its importance is growing in local schools. These conversations also highlight the complexity of the topic and suggest that factors such as developmental aspects, gender balance in the classroom and school type and size might play a role in boys' achievement. These aspects will be explored in more detail later in this assignment.

So far local LEA initiatives to deal with the concern of some of the schools about boys' perceived under-achievement appear sporadic. LEA responses to these concerns are more likely to succeed, if they combine a countywide audit of thinking and practice with an analysis of research based evidence on this topic. An overview of psychological and educational research is provided below, whilst recommendations for resulting LEA policy and practice will be made later in this assignment.

5. The Research Perspective

5.1 Explanations of educational performance

5.1.1 Genetic/ biological factors

Kimura (1993) holds that there are major sex differences in intellectual functions, which seem to lie in patterns of ability rather than in overall level of intelligence.

The bulk of research evidence in this field suggests that the effects of sex hormones on brain organisation occur so early in life that from the start, the environment is acting on the 'differently wired brains' of girls and boys.

Kimura argues that men on average are found to perform better than women on certain spatial tasks, in particular rotating an object or manipulating it in some other way. Men also outperform women in mathematical reasoning tests and navigating their way through a route and appear to be better at tests of target directed motor

skills. Women, on the other hand, are reported to be better at rapidly identifying matching items, i.e. perceptual speed. They have greater verbal fluency, including the ability to find words that begin with a specific letter. Women also outperform men in arithmetic calculation, in recalling landmarks from a route and in certain precision manual tasks such as placing pegs in designated holes on a board. Kimura found that three-year-old boys do better at targeting for example than girls the same age. However, men and women overlap enormously on many cognitive tests, so researchers have to use variations within each group as a tool to gauge differences between groups.

According to Kimura, differing patterns of ability between men and women come about by different hormonal influences on their developing brains. Similarly, Benbow (1988) suggests that high mathematical reasoning ability has a significant biological determinant, especially at the upper end of the distribution, where males outnumber females thirteen to one. Benbow also argues that these differences are not readily explained by socialisation factors. On the other hand, Golombok and Fivush (1994) dismiss gender differences in ability in mathematics and language as so small, as to be virtually non-existent and hypothesise that the measurable sex differences in aptitude are due to 'a complex interaction between small biological differences and larger gender differences in socialisation experiences' (p176).

Levels of Testosterone have been found to influence behaviour of boys and girls – higher levels of Testosterone lead to boys being more competitive and to girls to being, in general, quieter and more compliant. Lower levels of Serotonin lead to greater risk-taking in boys, which may make them good at problem solving, but may also lead to behavioural problems. Higher levels of Serotonin are thought to enable girls to analyse data more rationally and thus to control behaviour through a

better understanding of emotions. Differing levels of Dopamine in boys' and girls' brains are hypothesised to influence the level of stimulation needed, with boys showing a shorter attention span than girls and girls listening longer and more effectively.

Kimura (op cit) explains these sex differences in intellectual functions by their adaptive significance in the distant past, especially in the division of labour between the sexes. In hunter-gatherer societies, men were responsible for hunting large game requiring stamina for long distance travel and for defending the group against enemies (speed and strength). Women gathered food, made clothing and looked after the children (all tasks which required advanced social skills and careful attention to detail). However evolution is lagging behind rapidly changing sex roles. There is some evidence that women develop communication skills earlier than men. Researchers of Surrey LEA found that there are marked differences in linguistic ability between three year old boys and girls. The gender gap in English is already observable at age seven.

The nature/nurture dichotomy is not a very productive way at looking at gender differences in performance. Halpern (1992), having reviewed the evidence, comments that the evidence is by no means clear-cut. Genetic disposition is only one of many factors influencing performance. Like other ranges of individual differences such as height, it does not explain differences in individuals. It may provide some informative parameters but the pattern of sex differences across cultures and developmental phases is often unstable and the implications for teaching generated by a biological explanation of gender differences tend to be sparse.

5.1.2 Gender and high ability (giftedness)

German research (Stapf, 1990) has shown that intellectually gifted girls appear to be more like gifted boys than girls of average ability. However, according to Freeman, the effects of gender on high-level achievement are different, possibly due in part, to the 'glass ceiling', the invisible barrier that prevents gifted females from achieving their true career potential. (Freeman, 1996a).

5.1.3 Cognitive styles and learning styles

As early as 1962 Witkin et al, investigating cognitive style, suggested that girls were more field – dependent than boys. Findings of later studies, using different research instruments, were not as clear-cut as this original study.

Riding et al (1998) investigated gender differences with respect to cognitive style, in particular verbal-imagery and wholist-analytic dimensions, and found gender differences to be usually small and non-significant on both dimensions.

Some studies have shown gender differences in the performance on information processing tasks. As referred to earlier in this assignment, Riding and Smith (1981) found that 11 year-old boys were superior to girls on the recall of prose passage details after listening to a single spoken presentation. After two presentations of the passage at a slow speech rate the girls were slightly better than boys. This could be interpreted as males processing faster, but to a more superficial level than females, but females being more thorough.

Examining the interaction between gender and style, Riding and Pearson (1994) used the Cognitive Styles Analysis (wholist – analytic and verbal – imagery style) to assess learning style and found that overall examination performance on a range of

school subjects by 12 to 13 year-olds was highest for bimodals for boys, and lowest for bimodals for girls (bimodals are those at the central section of the verbal-imagery dimension). They concluded that this mirror-image gender performance might be explained by an interaction of gender and verbal-imagery style in terms of the location of brain activity, (the fast, more superior processing of the males versus the more thorough approach of the females). These findings on cognitive style and gender would fit with Kimura's findings on sex differences in the brain.

However, gender differences with respect to cognitive style do not explain the extent of the gender gap in the classroom and other important variables also need to be considered.

5.1.4 Gender, self-esteem and self-concept

The concept of self-esteem is considered to be an important mediating variable between teaching and performance, yet two major reviews of research into gender and self-esteem report no major differences in overall self-esteem (Maccoby and Jacklin, 1974 and Wylie, 1979).

Self-esteem studies by Burnett (1996) showed that a positive self-image is most influenced by positive statements from parents for boys and from teachers for girls. A negative self-image is most influenced by negative statements from siblings, peers and teachers for girls and from parents for boys.

In a later study Burnett (1999) noted gender differences in children's perception of negative statements made by teachers. Negative statements were related to boys' negative self-talk and maths self-concept. This suggests that boys who perceived that their teachers spoke negatively to them had high negative self-talk and a low maths self-concept, although girls' self-talk appeared not to be influenced so much by perceived negative comments from teachers, but they did have a low maths self-

concept. This highlights a particular sensitivity of boys to negative teacher feedback, a point that has important implications for teaching styles and classroom management and will be addressed later in this assignment.

5.1.5 Gender and motivation

Dweck et al (1978) found that girls had a greater tendency to develop 'learned helplessness' than boys, repeatedly attributing failure to a deficiency in the self. Dweck et al explained the difference in a tendency to learned helplessness between boys and girls to the types and amount of feedback given to the pupils by their teachers, echoing Burnett's findings and, again highlighting the importance of teacher behaviour. This fits in with Hattie's conclusions (1992) that feedback is the most powerful single moderator enhancing achievement. Hattie carried out a meta-analysis of data from the past 30 years of educational research, with the aim to identify the 'typical' effects of schooling. If feedback is gender sensitive as well as positive, it is likely to be even more effective.

5.2 Family influences

Hannan (1997) has suggested that boys and girls are brought up differently. Girls are brought up to relate well to other people, to take responsibility for themselves and others, and to communicate effectively with others. They are the 'talkers' and parents also talk to them. In contrast, boys tend to relate to objects rather than people. They are the 'doers' and parents tend to talk less to them. Consequently, boys' language and social skills are less developed. Yet, these skills are important for progress at school. However, these general assumptions have to be viewed with caution. As yet there is little research evidence that the connection between what has been claimed to be 'boy characteristics' and school achievement is a causal one.

Recent changes in family composition, with an increasing number of single parent families, the majority of which are headed by women, may affect boys' development. Many boys have few male role models at home and at school. They often consider reading as women's business, since it is mainly mothers who read with them. These are just a few of the family factors suggested to differentially influence boys' and girls' school learning but the role model topic is vast and considered to be beyond the scope of this assignment.

5.3 Gender and school factors

5.3.1 School cultures

5.3.2 Attitudes to school

Research generally found that girls enjoy school more than boys. Graham (1994) surveyed 4000 pupils and found that after year 9, boys show less commitment to school. This finding fits in with the concern of many secondary teachers identifying year 9 as a difficult year and with the increased number of referrals to the educational psychology service of boys in this year group. It is difficult to tease out the many factors which may be responsible for the decline in boys' enjoyment of school at a certain stage of development, and there is scope for a study asking the boys why this should be so.

5.3.3 Teachers' gender values

'There is evidence that teachers' gender values and expectations play an important role in shaping pupils' perceptions of, and reactions to, school' (OFSTED Review of Research on 'Gender and Educational Performance' op.cit.) For instance, Abraham, (1995) suggested that teachers attitudes on sex roles strongly influence their specific judgements in relation to teaching and choice of curriculum materials

and that conflicting gender value systems can also create tension both between pupils and between teachers and pupils, thus affecting academic performance.

Surveys of teachers' attitudes in the mid-80's suggested that science teachers and male teachers were more likely to be resistant to promoting gender equality. 'Boys will be boys' and 'girls will be girls' was their attitude and different standards of behaviour were expected and accepted from boys and girls, tolerating more aggressive and boisterous behaviour from the boys. However, these findings provide soft data, which lack the backing of rigorous investigation.

Gender has also been investigated in relationship to bullying, and boys are reported to bully more than girls. However, girls bully in more devious and covert ways, which are not so observable, but equally damaging. The OFSTED Review (op.cit) called for *more research on the effects of bullying and harassment on male and female performance.* (p.62).

5.3.4 Gender and special educational needs

Boys tend to outnumber girls at all stages of the Code of Practice, including statements, as well as in referrals to the educational psychology services, particularly for emotional and behavioural difficulties (Cooper et al, 1991).

A report by the Newham Education Authority (2000), entitled 'Girls' Voices', highlighted the uneven nature of the allocation of 'special needs' resources, (disadvantaging the girls), and challenged the assumption that girls' needs are less than boys. The conclusions of this action research project were that SEN resources are marginalising girls and that girls are underrepresented in emotional and behaviour difficulties (EBD), not because they do not have similar needs to the boys, but because they are 'drowned out' by the boys. Procedures outlined in the

Code of Practice are unlikely to identify high academic achieving girls with emotional and behaviour difficulties because teachers perceive emotional and behaviour difficulties as 'acting out behaviour' causing disruption and tend to overlook silent, emotional difficulties.

The OFSTED Review (op cit) commented on the disproportionately high numbers of both male and female African – Caribbean pupils being excluded and identified ethnicity and social class as factors more important than gender.

'Gender values may account for some of the discrepancies in special needs provision and school exclusions, but such values also appear to be affected by the impact of ethnicity and class'. This theme is taken up with more emphasis in the OFSTED synthesis of research evidence entitled 'Educational Inequality – Mapping Race, Class and Gender (Gillborn et al, 2000) and will be discussed in more detail later in this assignment. While white boys are overrepresented in the SEN categories of 'learning difficulties' and 'reading difficulties', black boys, especially those from Afro-Caribbean cultures, are the majority in the EBD category (OFSTED Review, op. cit).

5.3.5 Gender and peer culture

Variously termed 'laddism' or 'anti-swot' culture of boys has been identified in a number of studies as a strong influence on boys' achievement. Such studies suggest that school organisation (in streams or sets) can have a considerable impact on whether pupils see themselves as 'failures' or 'successful'. Boys are in the majority in the lowest academic streams, particularly for foreign languages and for English and, as a result, develop their own anti-school subcultures. Thus curriculum strategies may reinforce negative attitudes among boys, who (as reported by Weeks (1999) about a project carried out by Devon LEA, 1995),

consider working hard as 'not cool', carrying school bags/ books as 'naff' and view hard-working pupils as 'boffins', 'sad', 'swots' or 'keenos'.

It is widely held that one of the reasons for boys' macho culture is male unemployment. Economic change has encouraged the culture of the disaffected 'macho lads'. These lads respond to their academic failure and their negative employment prospects by celebrating the '3F's (fighting, football and f...ing') (Mac an Ghail (1994). Another reason suggested is that today's boys are 'the most under-fathered generation which has ever lived on earth' (Biddulph, quoted in 'The Underachievement of Boys' by Weeks, 1999).

However, disaffection and 'acting out' behaviour is not the exclusive domain of boys. Campbell (1994) investigated the place and meaning of aggression in the social world of boys and girls and of adult men and women. She used discourse analysis to examine the way aggression was conversationally framed by men and women in same-sex discussion groups. The results suggested two representations, which Campbell called 'instrumental' and 'expressive'. According to Campbell *'men's instrumental representation includes a belief in aggression as an act of social coercion or control, the successful use of which carries with it positive implications for self-esteem and social status. Women's expressive orientation, however, views aggression as a result of temporary loss of self-control, carrying with it negative implications for self-esteem and considerable feelings of guilt'*.

According to Campbell, the male view of aggression dominates the social institutions of society through which aggression is policed and regulated. Women's expressive view is not articulated but either transposed into a male instrumental framework or dismissed as pathological. Campbell claims that under certain circumstances the male view of aggression may be adopted by young women, as for example by young women in street gangs who face daily victimisation by men in

their neighbourhoods. These young women work at establishing a reputation for violence and consequently take on an instrumental representation of aggression to protect them from exploitation by men whose self esteem may depend upon their ability to control and coerce women. It is worth thinking about how the dynamics suggested by Campbell generalise into the school and classroom situation.

An ethnographic study of children's play at breaktime by Epstein et al (2001), argues that '*children will use the means available to them to construct gender in their playgrounds*' and that they often reproduce '*hegemonic cultural identities and relations of power*'. Epstein et al suggest that individual schools can influence such identities and power relations by making available to the children ways that are '*more open to possibility and difference*'

5.3.6 Gender and school organisation

Curriculum

Today, in the UK, schools are not responsible for the curriculum, but they can influence how it is delivered. The national curriculum may impose constraints, but beliefs about boys' and girls' learning styles was found by some researchers to make a difference.

Hill et al (1993) in an Australian study found that teachers rated girls as more attentive in class. Boaler (1997) suggested that boys and girls differ in their attitude to learning. Several studies confirmed that boys do better with more traditional approaches to teaching which require memorising abstract facts and rules quickly. They prefer answers given at speed to deep understanding.

Research has moved on from aspects of the 'gendered' curriculum (for example, scrutinising messages in curriculum texts for gender bias) to the learning demands of pupils. There has been a shift from acquiring facts to processing knowledge. Some researchers claim that this shift may have contributed to the differences in performance between boys and girls (OFSTED Review, op. cit.)

The masculine and feminine ways of acquiring knowledge find a reflection in pupils' subject preferences: English is seen as 'feminine' subject from an early age. It is considered to be more suited to girls because it is a sedentary activity with a personal response to text and is irrelevant to the real world. (Martino, 1994). Similarly, the teaching of mathematics is influenced by the teachers in the classroom delivering the curriculum (Walkerdine, 1989). Walkerdine found that teachers rarely offered girls the opportunity to become 'brilliant' mathematicians. However, this attitude appears to be somewhat dated. There is some evidence that pupils' subject preferences and choices are becoming less gender-stereotyped and girls are more prepared to tackle 'masculine' subjects such as science, mathematics, technology, IT and PE. Boys on the other hand continue to shun 'feminine' subjects (OFSTED Review, op cit). Noble and Bradford (2000) maintained that it is the curriculum as well as methods of assessment, which have become more hostile to boys, particularly at Key Stage 4. This, they argued, has had an effect on boys' attitude, behaviour, effort and achievement. More boys react negatively to being forced to follow the National Curriculum. Girls knuckle down, whilst boys are more likely to be bored, alienated or confused and reject school. Boys fail to complete their course work even in subjects like Design and Technology, which they usually profess to like.

Teaching styles and classroom management

The quality of teacher-pupil relationships was found to be important for pupils' performance. Younger and Warrington (1966) found that teaching in a formal, didactic style created a strong negative reaction from boys. This fits in with Burnett's conclusions (op cit), stressing the 'power of the positive' as a most important implication for teachers and educational psychologists as well as with the findings of the meta-study by Hattie (op.cit.). Clark and Trafford interviewed pupils and foreign language teachers and found that the quality of the pupil-teacher relationship emerged as crucial for confidence building for both, boys and girls. Noble and Bradford (2000) claimed that '*boys are a more sensitive barometer of good teaching than girls*'.

5.4 Whole school aspects

5.4.1 School effectiveness

Research on school effectiveness found that schools which manage to create a 'distinctive' ethos such as teaching pupils of the same gender, with supportive parents, of the same religion or sharing other values and with higher prior attainments, seem to do well on the conventional criteria of educational performance (OFSTED Review, op cit).

Studies investigating differences between single-sex and co-educational schooling are rare. The only major English study comparing school type (Steedman, 1985) suggested that '*very little in pupils' examination results was explained by whether schools were mixed or single sex, once allowance had been made for differences in intakes*'. The OFSTED Review (op cit.) concluded that the apparently superior performance of single-sex (and especially girls-only) institutions in terms of overall measures of exam results was largely due to

the initially superior performance of the pupils entering the schools. When the initial differences were taken into account, the discrepancies in performance largely disappeared. The OFSTED Review (op cit) concluded that research in this field, however, is fraught with difficulties, particularly comparing like with like and finding large enough samples. For this reason the number of studies in this field meeting more rigorous experimental criteria, is small and studies fail to provide good data on pupils' prior attainments.

The number of studies, which focus directly on the effects of schools on gender differences, is limited and the OFSTED Review (op cit) calls for more research into school effectiveness in reducing gender gaps at GCSE and A-level. Factors such as school size, phase and gender balance in the pupil population also merit further research.

5.4.2 Setting

A recent phenomenon has been the reintroduction of setting and streaming in an increasing number of UK primary schools. There is no British based research which supports the contention that setting advances achievement (Noble and Bradford, 2000). Indeed, Boaler (1996) concluded that setting did not raise achievement, and also penalised the very pupils in most need of help. Particularly rigid setting disadvantaged boys, ethnic minorities and pupils from working-class backgrounds.

5.4.3 Single-sex groupings

Single-sex groupings were a response by co-educational schools, which were to provide opportunities for girls to enhance their competence in particular subjects, such as science and mathematics, and for boys in modern languages and English. The number of studies in this field is small and conclusions from the literature, not

surprisingly, still are cautious. Rennie and Parker (1987) found that mixed-sex groups could be effective if 'hands-on' experience is equally accessible to both girls and boys. Crump (1990) looking at more process-oriented variables such as pupils' attitudes to being organised in single-sex groups reported that girls liked the grouping, because boys tended to disrupt the lessons through mockery and competitive behaviour.

Some researchers and practitioners argued that in the safety of single-sex groupings pupils are able to discuss and challenge gendered behaviour and that they may provide space to help young people develop new ideas (Kruse, 1992). In particular, Rennie and Parker (1987) have suggested that single-sex groups might be useful, where teachers found it difficult to manage mixed classes.

5.4.4 Role modelling and mentoring

These are strategies currently tried out by schools. Quicke (1995) collected data from 24 schools and found that the majority of the schools were concerned about boys' performance and were introducing a process for mentoring performance, some for boys and some for boys and girls.

5.5 Social factors

5.5.1 Employment prospects

During the last 25 years the employment prospects for young people have changed dramatically. The decline of the manufacturing industries, the rise in the service industries and particularly the influence of technology created more jobs, which are often seen as 'women's jobs'. Long-term unemployment has become a way of life in some areas and there are signs that the employment future may look fairly bleak for a particular group of young men, offering few opportunities to the unskilled

workers among them. Such perspectives filter back in the school system and affect the motivation to learn, creating disaffection.

5.6 Social class and ethnic origin

Gillborn et al (2000), in the OFSTED Report entitled 'Educational inequality – mapping race, class and gender' provided a synthesis of research evidence on the topic. Gillborn et al concluded that 'since the 1980s the attainment gap between the highest and the lowest social classes had widened and that *'the familiar association between class and attainment can be seen to operate within each of the main ethnic groups'*. Gillborn et al maintained that the gender gap was considerable smaller than the inequalities of attainment associated with ethnic origin and social class background. The most disadvantaged ethnic groups were reported to be Pakistani/Bangladeshi and Afro-Caribbean pupils. Once the variables social class and ethnic origin were parcelled out, the gender gap, in particular boys' underperformance was narrower than effects of social class and ethnicity. The black/white gap was twice the size of the gender gap. These are important findings, which highlight the fact that the disproportionate media attention to gender may be misplaced and it would be more effective in bringing about positive change, if focussed on social inequality.

Gillborn et al. concluded their review concerning educational inequalities in relation to 'race', class and gender as follows:

- Ethnic inequalities of attainment vary from one area to another but, despite this variability, distinct patterns of inequality are consistently visible;
- Inequalities of attainment in GCSE examinations place African-Caribbean, Pakistani and Bangladeshi pupils in a disadvantaged position in the youth

education, labour and training markets, and increase the likelihood of social and economic exclusion in later life;

- Social class and gender differences are also associated with differences in attainment but neither can account for persistent underlying ethnic inequalities: comparing like with like, African-Caribbean, Pakistani and Bangladeshi pupils do not enjoy equal opportunities;
- Ethnic inequalities are not new but neither are they static. Evidence shows that in some cases the inequalities have increased in recent years. African-Caribbean and Pakistani pupils, for example, have not shared equally in the rising levels of GCSE attainment'.

6. Gender and Achievement – an Interactive Factors Model

The causal or interactive factors model overleaf is an attempt to illustrate the complexity of the nature and outcomes relating to gender influences on achievement and to unpick some of the variables. Needless to say, the list of variables is by no means exhaustive. The model is based on Morton and Frith (1992) who developed this approach to analyse developmental psychopathology. Morton and Frith devised a method of transcribing causal theories into graphic notation.

The model overleaf illustrates the possible interrelating factors mediating gender and achievement and the cumulative effects of the interrelation between biological factors such as neurological functioning and hormonal factors and behavioural/environmental factors through cognition.

Table 3 – An Interactive Factors Model of Gender and Achievement

| | |
|--|--|
| <p>ENVIRONMENTAL FACTORS</p> <p>Cultural factors Ethnicity Language Religion</p> <p>Societal factors Social class Peer cultures Power patterns Neighbourhood aspects Employment prospects</p> <p>Political factors National and LEA policies, Affecting curriculum and assessment</p> <p>Family factors Parental history and experience Family composition Attachment patterns Child rearing practices</p> <p>School factors School type and size School phase Ethos Behaviour policies Organisation Classroom management Teaching styles</p> | <p>BIOLOGICAL FACTORS</p> <p>brain structure neurological functioning hormonal factors physiological factors, eg Heart rate</p> <p>Developmental factors rate of maturation</p> <hr/> <p>COGNITIVE FACTORS</p> <p>Cognitive functioning High ability/giftedness Attention span Information processing Cognitive style Learning style Motivation Self-esteem</p> <hr/> <p>BEHAVIOURAL FACTORS</p> <p>School experiences Teacher feedback Patterns of reinforcement Passive vs active learning Success vs failure</p> |
|--|--|

7. Integration of Context and Research issues

Research evidence on the topic of gender and achievement consists of a large number of post hoc, descriptive pieces of action research. There is a need for more experimental, longitudinal studies. One obvious gap is the lack of knowledge concerning schools in which boys as well as girls achieve high standards. As mentioned earlier in this assignment, practice to optimise both boys' and girls' learning appears to be similarly fragmented.

Conclusions of the OFSTED Review of Research 'Recent Research on Gender and Educational Performance' called for more research on school effectiveness related to some of the factors which affect schools' progress in reducing gender gaps at GCSE and A-level and in relation to national assessments. (Page 53). In addition the Review called for more research on special needs *'to see how far teachers' assumptions about black and white masculinity and femininity account for gender differences in special needs provision.'* Furthermore, the researchers concluded that there is a need for 'innovative teaching strategies which reach boys more effectively' – but which also protect 'space for girls' interests'.

In their concluding comments these researchers highlighted the fact that initiatives which schools have taken to address the gender gap, have often been based on a mix of guidance from various sources. Studies of school and classroom initiatives undertaken by teachers and researchers in schools tended to be small-scale and short-term and to focus more on attitudes and process than outcomes (page 87). The conclusion was, that there was little definitive evidence of the way that particular strategies were affecting pupils' performance over time and more longitudinal studies were called for. The issue remains of how research on gender is best collated, evaluated and disseminated to schools so that it can influence thinking and practice.

Limitations and criticisms of educational research are well known. Many of the conclusions of past OFSTED reviews of research are non-specific, i.e. *'The overwhelming message from research is that there are no simple explanations for the gender gap in performance nor any simple solutions'*. For this reason they are of limited use. The different kinds of explanations illustrated in the interactive factors model on page 27 are not necessarily incompatible, but some may be more useful, since they are more open to change.

Following Morton and Frith's (op.cit) conclusions that biological factors can be related to and mediated to by cognition, a narrower research focus on cognitive factors and gender, such as attention/concentration span, information processing, problem solving, mathematical reasoning ability and learning style as well as on school organisational factors such as teaching styles and teacher attitudes and their interaction with gender, would be a productive beginning. In addition, the existing research base provides useful pointers as to which environmental aspects interact with gendered behaviour, just to mention the playground study by Epstein et al (op. cit.).

Informed by these findings rather than media hype, political/educational trends and piecemeal, trial and error initiatives, future practice could become more gender sensitive and could make a difference to the achievement of both boys and girls.

7.1 Recommendations

In the OFSTED review on 'Recent Research on Gender and Education' (op. cit) the researchers recommended a careful analysis of data, mapping the relative progress of pupils according to key pupil sub-groups and developmental aspects. Psychological theory and knowledge base on individual differences and child

development has a contribution to make to this. In addition, the researchers called for an examination of other areas where gender differences occur, such as behaviour, attendance and exclusion, not just academic achievement. They advocated changes in teaching practice needed to counter boys' perception of English as a feminised subject, i.e. the promotion of positive male and female role models in relation to the reading and enjoyment of books. A further matter of concern identified were the differences in patterns of subject choice. Strategies to break down gender stereotypes such as some single-sex groupings to enhance pupils' competence and confidence were suggested in particular subjects as well as role modelling and mentoring.

7.2 Implications for schools

Evidence from research points towards the following strategies to address gender differences:

- To develop whole-school approaches to gender which take account of equal opportunities
- To create a school ethos which identifies school as a place of learning and challenges any anti-swot or anti-achievement culture
- To change the pastoral focus to counter stereotypes held by adults, which have an enormous impact on the development of children. These stereotypes are found as early as the pre-school years. Courses on gender-stereotyping and gender differences could be included in the PSHE curriculum
- To examine the curriculum and school activities and to make sure that girls and boys are equally represented in these. This includes equal representation of men and women throughout all levels of the school's managerial structure
- To work with pupils, teachers and parents to address these stereotypes

- To create a classroom atmosphere which provides a variety of teaching styles, matching the learning styles of as many pupils as possible and providing flexibility and variety.

7.3 Implications for the classroom

Noble and Bradford (op.cit.) argue that current educational practice was friendlier to girls' learning styles than boys'. They mentioned some of the reasons as - emphasis on listening, reading and writing, classroom activities that are sedentary and require sustained concentration, non-competitive tasks and a culture which perceives mistakes as wrong. Their recommendation was that educational practice should become friendlier to boys' learning styles. Such a practice would allow controlled movement, encourage boys to learn by trying out rather than being told about experiments in science and teach boys to set and meet targets.

In such a boy friendly classroom the following factors are likely to be predominant:

- learning in context
- appealing to boys' risk-taking streak
- encouraging target-directed motor skills – i.e. football, rugby outside the classroom, to improve self-esteem in the classroom
- helping boys to organise and structure their work.
- creating a climate where boys do not see intellectual pursuits as second best to sport
- including more active learning, more practical investigations and more role-playing. (There is evidence that boys work best when they are actively engaged in their work).
- varying groupings – pairs, fours, mixed sex groupings, mixed ability groupings

Based on extensive action research in their schools, Noble and Bradford stressed that it is what happens in the classroom that really determines achievement. The authors encouraged teachers to use the VEST (variety, engagement, sociable learning, and transforming the type of learning) approach in the classroom and listed the following as characteristics of the preferred learning styles of boys: risk taking, short, time-limited tasks, challenge, group work, active learning, sociable learning, ICT, audio-visual aids and quizzes. It has to be said that these characteristics would appeal equally to many girls and may be generalisations on large groups of boys or girls. Any given individual pupil may match the overall pattern to a greater or lesser degree.

Surrey EPS in an in-house draft paper on 'Motivation to Learn: gender differences and opportunities to learn and achieve' advocated the following actions to counter the differential effects of cultural factors, expectations and stereotypes in the classroom:

- Actively encouraging a view point of equal opportunities and non-sexist expectations
- Identifying books and materials that reinforce traditional stereotypes of both boys and girls and to use these to explore how they can create disadvantages. Counterbalance these materials by books which advocate alternative gender models
- Encouraging girls and boys to become involved and develop confidence in games and activities that are traditionally viewed as the province of the opposite sex.
- Trying to maintain a consistent approach to the same behaviour depending on the sex of the pupil, including the same system of rewards and punishments

- Attributing successes and failures equally for both boys and girls to a combination of effort and strategies and skills used.
- Encouraging paired and small group discussion of whole class questions before asking for a response to avoid boys dominating the discussion.
- Encouraging assertiveness in both girls and boys who find it difficult to have their needs met in group work.
- Rewarding non-sexist attitudes in the classroom and provide appropriate role models through the use of drama, for instance.

7.4 Implications for LEAs

LEAs are enmeshed in and restrained by the wider central political, economic and social contexts. However, they can create their own individual climate by promoting equal opportunities and the understanding of ethnic minorities. In particular, LEAs could encourage policies, research and projects to address the gender gap in achievement. The local LEA is moving in this direction by actively encouraging increased understanding of and equal opportunities for pupils from ethnic minorities. The LEA has created a county wide support team to raise the achievement of minority ethnic pupils including travellers and refugees. (Minority Ethnic and Traveller Achievement Service). The aim of this service is to raise standards of achievement for those minority groups who are particularly at risk of under-achieving.

7.5 Implications for Educational Psychology Services

Of all the professional groups working within education services, educational psychologists would appear to be in an ideal position to assist the LEAs in the goals listed above. EPs are able to use their psychological knowledge and research skills to advise the LEA on valid and specific projects. In particular EPs could:

- Apply theoretical frameworks such as Morton and Frith's causal model to normal development regarding gender and learning as well as to psychopathology. In their paper on 'Causal Modelling: a Structural Approach to Developmental Psychopathology, Morton and Frith made the case that *'for higher cognitive functions, the route from biology to behaviour must be through cognition'* (p37). When looking at the effects of gender on learning and achievement, it may be productive to focus on the cognitive variables such as information processing, learning style and motivation to promote pupils' learning behaviour in the classroom which is optimising both boys' and girls' potential.
- This focus on cognitive variables will contribute to the research and development of innovative teaching strategies, which reach both boys and girls more effectively and compensates for the effects of biology and socialisation on gender and learning.
- Assist schools in the development of emotional learning in pupils, but particularly in vulnerable pupils of either gender. This could take the form of systems work, addressing whole school issues, staff development, group work with pupils on assertiveness training, or work with individual pupils.
- Help monitor equal opportunities such as equal access to SEN provision by refining psychological assessment procedures, which identify the quietly-unhappy pupils of either gender, as well as the acting-out individuals.
- Once these unhappy pupils are identified, contribute to their emotional well-being and learning through working with teachers, parents and the pupils themselves.

8. Some final points

Research evidence points to the fact that the similarities between the genders outweigh the differences whilst gender gaps vary from school to school. It also highlights that factors such as ethnic origin and social class are more influential in creating differences in achievement, and media attention and government action would be more productively directed to these factors rather than to gender. It would appear that we have knowledge such as useful psychological frameworks, providing some of the answers as to how best to educate both girls and boys. What remains is how this knowledge can be translated into effective practice. If Bradford and Noble's claim that boys are 'a more sensitive barometer of good teaching than girls' is correct, the achievement of boys could be used as one of many performance indicators of school effectiveness. However, this should not happen at the expense of girls. In the light of research findings by Stapf (op.cit) and Freeman (op.cit) that gifted girls appear more like gifted boys than girls of average ability, girls' recent academic successes are, surely, a cause for celebration and do not detract from boys' achievements.

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University College London

**Continuing Professional Development
Doctorate in Educational Psychology**

PROFESSIONAL PRACTICE ASSIGNMENTS

Submission for Examination

Name: Paula Astrid Gregor

Number and title of Assignment: Assignment No 4

Title: The Evolving Professional

**Section of the BPS Core Curriculum for Professional Training
in Educational Psychology to which this assignment relates:**

2 Interpersonal effectiveness

2.2.3 Professional development frameworks including CPD

Submission Statement

I confirm that:

- 1. This submitted assignment is my own work; and**
- 2. I have read and acted upon the guidelines for avoiding plagiarism contained in the DEdPsy Handbook**

Course Members Signature:

P.A. Gregor

Date:

14.10.02

Consent Statement (optional)

I authorise the Department of Psychology to make a copy of this assignment available for public reference at the discretion of the Course Director.

(Please note that copies of examined work may be retained for up to five years for University quality assurance purposes).

Course Members Signature:

P.A. Gregor

Date:

14.10.02



University College London

Doctoral Programme for Practising
Educational Psychologists
(DEdPsy)

Professional Practice Assignment

Submitted in part fulfillment of the
requirements for the Continuing
Professional Development Doctorate
in Educational Psychology (DEdPsy)

**Name of Course Member: Paula
Astrid Gregor**

**Title of Assignment: The Evolving
Professional
Assignment Number: 4**

**Core Curriculum area to which this assignment
topic relates:**

**2 Interpersonal Effectiveness
2.2.3 Professional Development
Frameworks including CPD**

Date submitted: October 2002

Signed: *P.A. Gregor*

Table of Contents

1. Introduction

2. Aims and Objectives

3. Abstract

4. Context and Practice

5. The Research Perspective

6. Integration of Research and Practice

7. Conclusions

8. References

9. Appendix

Title: The Evolving Professional

1. Introduction

In the last decade there has been a change of role for practitioners in public services. Increasing accountability as well as higher expectations and greater transparency have put pressure on professionals to analyse and clarify client needs and to objectively evaluate strategies and initiatives for change. Stoiber and Kratochwill (2000) have summarised this change as follows: *'Practitioners can no longer assume that offering something is useful; there is an expectation of professional accountability in determining students' needs and linking them to optimal preventative or intervention strategies.....and practitioners must be committed to evaluation of practice and providing feedback on the application of empirically supported interventions in schools'*. (p100).

This challenging public climate has coincided with a growing unease in the profession of educational psychology about the gradual narrowing of the EP role to single-minded statutory functions and the requirement to harness and to promote the profession's expertise in experimental research. The knowledge and skills base in educational psychology, as in other fields, has been growing exponentially and has contributed to a change in thinking about professional training. The response of professional organisations such as the British Psychological Society and the Division of Educational and Child Psychology has been to rethink educational psychology training and to recommend the inclusion of a substantial component of research as part of any continuing development doctoral programme. Such renewed

emphasis on one of the under-used core skills of the profession has gone in parallel with a higher profile of training in research as part of continuing professional development, leading to initiatives such as the CPD doctorate in educational psychology (DEdPsy). Research skills have tended to lie fallow in many educational psychology services, except perhaps in those services which are more closely associated with University Departments.

This assignment focusses on personal and professional development, with a particular focus on interpersonal skills as one of the core skills of educational psychologists. However the assignment will argue that research skills are as important as good interpersonal skills, and that educational psychologists should become practitioners – researchers.

1.1 Information sources

A literature search of databases PsychINFO and ERIC was carried out, with the key words 'interpersonal effectiveness' (76 records found, none directly relevant), 'reflective practitioner' (203 records found, three were marginally relevant), and 'research, educational psychology' (42 records found, none directly relevant). In addition a manual inspection of a selection of professional journals was carried out. Further information was provided by teaching input from the DEdPsy course and from educational psychology practice.

2. Aims and objectives

- To examine the impact of continuing professional development in the form of a doctorate in educational psychology (DEdPsy), on interpersonal and professional skills.
- To evaluate two theoretical frameworks for assessing change in interpersonal and professional skills in the light of research evidence and practice.
- To consider the role of research as part of educational psychologists' core skills.
- To formulate some recommendations for the evaluation of continuing professional development initiatives such as the DEdPsy by individual professionals and by educational psychology services.

3. Abstract

This assignment examines research evidence for two methods of evaluating change in interpersonal and professional effectiveness as a result of continuing professional development and links this with examples from practice, with particular reference to the doctorate in educational psychology.

The assignment includes some personal considerations and reflections on the changes brought about by the participation in the doctorate programme.

In addition the assignment investigates whether the UCL programme - in particular the research component - contributes to professional renewal and growth both for individual professionals and for educational psychology services. In the concluding section, an attempt is made to formulate some recommendations for future practice while emphasising the importance of including research in the evaluation and growth process.

4. Context and Practice

The work of educational psychologists

The work of educational psychologists is essentially nomadic and takes place in a wide variety of contexts. Educational psychology services have to meet expectations of a multiplicity of service users (Bartram and Wolfendale, 1999).

One of the key activities of educational psychologists is listening and talking to children in order to promote their learning and wellbeing. In addition educational psychologists listen and talk to adults who have care of the children. Often educational psychologists' opportunities for facilitating positive change for their clients are restricted by time constraints.

For this reason, effective interpersonal skills are of the utmost importance in EP practice, since they allow the establishment of effective working relationships well and quickly. Good interpersonal skills are vital in creating a setting in which children and adults feel able to share concerns. Interpersonal skills are the vehicle for bringing psychological skills and

knowledge to educational psychologists' work settings in order to address these concerns and to promote positive change for their clients.

However, in effective practice interpersonal skills are necessary, but not sufficient. The opinion expressed in the introduction was that the other vital component of effective EP practice is research. Some evidence emerging from the discussions in the assignment will back up this view.

The following sections compare and contrast two models of assessing change in interpersonal and professional effectiveness by looking at the research background for these models and by examining their practical applications.

4.1 The 360-degree feedback model

360-degree appraisal is a method for professionals to collect feedback from a range of people with whom they work to be compared with their own self-assessment. The feedback is given on a series of rating questionnaires, which contain a range of topics and questions from a variety of aspects such as personal and interpersonal perception and impression formation. These concepts have been drawn from social psychology, differential psychology, and individual and personal development (Dunnette, 1993). Questions are stated in behavioural terms. The 360-degree feedback model has been adapted to many areas of performance review, including educational psychology services. The 360-degree feedback is being adapted to management review programmes and appraisal systems, and

more recently to manager performance reviews of Government departments. The feedback can be solicited from peers, clients, managers or subordinates and from inside and outside of any service.

The feedback is anonymous and the results are aggregated to communicate the mean values to the ratee.

Description of the 360- degree instrument

The 360-degree feedback instrument consists of two rating scales, a four-point scale for the importance to respondents for each behavioural item ranging from 1 = not important, to 4 = extremely important, and including a rating N/A = not applicable, for items the rater perceives as not sufficiently important. The second, parallel rating scale is a six-point scale for the performance rating of the same item from 1 = not at all well, to 6 = exceptionally well, with a D/K = Don't Know, for items the rater has not much knowledge of.

The main topics for the scale had been developed by being screened out in several phases from items chosen from a variety of sources. These sources included the British Psychological Society core curriculum, EPS service guidelines, job descriptions, relevant psychological literature on effective interpersonal behaviours in school consultation and from items elicited from focus groups such as headteachers and groups of educational psychologists. The items were condensed and streamlined by statistical analysis in order to improve validity, following research-based guidelines for instrument and process development by London and Beatty (1993) and

Antonioni (1996). The major sections of the scale are 'Interpersonal and Communication Skills', 'Professional Knowledge and Practice', Work Organisation and Management' and 'Ethics and Equal Opportunities'. For the evaluation of the DEdPsy, course participants brainstormed items and goals, which they considered to be specific to the course and additional to the content of the 360-degree scale.

4.2 An illuminative case study – self-evaluation by 360-degree feedback

Purpose of the exercise

The purpose of the pre-and-post ratings using the 360-degree approach was to map changes over time in interpersonal and professional effectiveness as a result of participating in the doctoral programme, with a particular focus on personal and professional development.

4.2.1 Method of the individual evaluation

Time-line

The 360-degree questionnaires were given at the beginning of the doctoral programme, in the course of the Spring/Summer of 1999, as pre-ratings/baselines and then again in the Spring/Summer of 2002, as post ratings, after three years of the programme had been completed.

Sample

In total, four educational psychologist colleagues and four teachers agreed to anonymously complete the questionnaires. The participants were also self-rating the items. The participant's EP colleagues were selected

because they had worked closely with the ratee and knew her work. The colleagues from schools were selected for similar reasons, and because the ratee had worked with these schools long enough for some of the staff to become familiar with her work.

Procedure

The results were collated and fed back to the participants. The information was computer-analysed and printed as a report, illustrating data on a grid and in chart form, comparing others' and self-ratings. Reports were confidential and individualised. They clearly highlighted areas to celebrate and areas to fix.

4.2.2 Results

Quantitative analysis

Examples of feedback illustrating the pre (1999) and post (2002) ratings on the 360-degree questionnaires are provided in the Appendix. In the revised (2002) version colleagues' ratings are juxtaposed to self-ratings, highlighting areas for celebration and areas for improvement (areas 'to be fixed'. This method of presentation was new in 2002. The Appendix (page 3) illustrates a comparison of the five items that are rated highest on both 'Importance' and 'Performance' by colleagues and by self in 2002 – areas to celebrate. The 'Celebration Index is $(\text{Mean Importance}) \times (\text{Mean Performance})$ represented as a percentage: the higher the index, the more reason to celebrate.

Page 4 of the Appendix illustrates a (2002) comparison of the five items that have been rated highest on 'Importance', but relatively low on 'Performance' by both colleagues and by self – priority areas to be fixed. The 'Fix It Index' is $(\text{Mean Importance}) \times (\text{Maximum Performance}) - (\text{Mean Performance})$ is represented as a percentage: The higher the index, the greater the need to improve in this area. The 'Fix It Index' highlights areas for improvement.

The 1999 version presented data differently to the revised 2002 version, so formal analysis of the data was ruled out and only grids and verbal items could be compared. On visual inspection, there appears to be no significant difference in the grid positions for pre- and post ratings. However, changes become apparent, if the pre- and post verbal items (top five items of each category) are compared. This will be discussed in more detail below.

The chart demonstrates that the self-ratings were invariably lower than ratings by colleagues, a fact that was confirmed by discussion with other course members who had similar feedback.

Qualitative analysis

The Year 99 course participants, discussing the possible relevance of the 360-degree feedback method for the evaluation of the DEdPsy, course listed some of their personal development goals as follows:

Knowledge of Psychology

- Develops more specialist knowledge of psychology
- Develops more up to date knowledge of psychology
- Links educational psychology more closely with research in cognitive and clinical psychology.

Research Skills

- Enhances research skills
- Develops knowledge of research methods and statistics
- Increases ability to link research and practice
- Enhances project management skills.

Critical Appraisal

- Increases ability to critically appraise other people's research
- Enhances the ability to ask the right questions
- Develops skills in challenging others' ideas in a supportive way.

Creativity

- Increases ability to make creative cross-links between fields
- Increases ability to develop new initiatives
- Increases openness to new ideas.

Interpersonal skills

- Increases skills in working with team members
- Enhances assertiveness and influencing skills.

Following the Year 99 pre-course feedback, some of findings were translated into a personal action plan.

My Action Plan (March 99)

Target 1 (to be completed before the end of November 1999)

- To change perception of own performance – to be less self-critical and to celebrate successes more. To lower expectations to a more realistic level.

Target 2 (to be completed before January 1st 2000)

- To do more work with whole schools and groups to identify ways of addressing their concerns – to adopt a systems approach in schools where there are lots of behaviour problems.

Looking back at this Action Plan three years later, it is felt that both targets have been partly achieved. There has been an attitude change in this participant who has begun to be less self-critical and more responsive to successes. In addition, systems work addressing whole school behaviour has been carried out in several schools.

Self-evaluation and professional reflection are important aids to continuing professional development. However, it was also important to ask the question – is the qualitative self-assessment of progress supported by the pre (1999) and post (2002) feedback from the 360-degree feedback? This will now be discussed. The responses for 1999 and 2002 are listed in the Appendix (pages 1 to 4).

Areas to celebrate in 1999

The top five performance areas rated by colleagues were as follows:

- 'develops effective working relationships
- responds sensitively to the needs of others
- takes others' concerns seriously
- listens well and responds appropriately
- is honest and open in his/her communication.'

Areas to celebrate in 2002

The top five performance areas rated by colleagues were:

- 'treats people with respect
- shows commitment to equal opportunities
- deals with difficult situations calmly and constructively
- develops effective working relationships
- takes others' concerns seriously'

Priority areas 'to be fixed' in 1999

The top five performance areas rated by colleagues were:

- 'understands the strengths/weaknesses of a wide range of assessment
- works with individuals and groups to identify practical ways of addressing their concerns
- shows awareness of the limits to what can be done
- works with people to identify possible solutions to their concerns
- checks out that others have understood what s/he means'.

Priority areas 'to be fixed' in 2002

The top five performance areas rated by colleagues were:

- 'checks that they have understood accurately what has been said
- is easy to understand
- explains how s/he will address needs identified
- is prepared – brings along correct information, file, etc.
- is clear about purpose of meeting, who should be there, what time'.

A more detailed analysis of the top five items of colleagues' ratings and the change from 1999 to 2002 shows the following themes:

1. Items to celebrate:

No change: recurring items to celebrate: valuing others; effective working relationships. (Self-ratings on these items were lower than colleagues' ratings).

Change: new items to celebrate: item suggesting improving conflict resolution skills; raised awareness of equal opportunities. (Again, self-ratings were lower than colleagues' ratings).

2. Items 'to be fixed

No change: recurrent items to fix: communication skills: checking out that others have understood. This theme was confirmed by the participant's self-ratings.

Change: new item to fix: item concerning work organisation: is prepared, brings along correct information. Not confirmed by self-ratings. This could

mean a blindspot in the ratee and is an area to be scrutinised more closely to bring about change.

Change: removed items 'to be fixed': understands the strengths/weaknesses of a wide range of assessments; is aware of the limits of what can be done. This change is likely to be due to the impact of increased knowledge gained during the DEdPsy course.

One interpretation of these findings could be that this is a professional who respects and values others, consistently establishes effective working relationships and perceives equal opportunities as of the utmost importance. This professional has fairly high self-expectations. She is aware that she needs to work on communication skills, particularly getting information across, taking time to check that it has been understood. In addition, this professional needs to improve preparation for meetings.

However, an alternative interpretation of these findings could be that here is a professional who is perceived as establishing effective working relationships by a group of selected colleagues whom she values and who value her in return, possibly leading to inflated ratings. This professional is aware of the pressures to get information across during limited opportunities and time for doing so, as well as of doing this not as well as she would wish.

My chosen interpretation of these data for my personal/professional development is that some of the 'areas to be fixed' are contaminated by

context variables such as national shortages of EPs as well as organisational problems within the local LEA impinging on the educational psychology service. Particularly during the last four years the local EPS has been affected by chronic staff shortages, and the remaining team had to cover for absent colleagues. My commitment and effort to communicate as clearly as possible and to prepare well for tasks has not changed since 1999.

4.2.3 A practical critique of the 360-degree method

The differing interpretations above illustrate the fact that causality for change is difficult to establish and that a variety of mediating variables could be present, such as work context, rater bias and changing raters.

In addition, a comparison of the 1999 and 2002 versions was difficult, since data were presented differently. Only a superficial comparison of the data and the grids was possible. This is likely to be due to the fact that the scale is relatively new and still in the process of development.

Some of the ratings were relatively high, so there may also have been a ceiling effect. The raters were colleagues with whom the participant had a good working relationship, so rater bias and halo effects may have crept in. For this reason the 360-degree results need to be cross-validated by other evaluation tools.

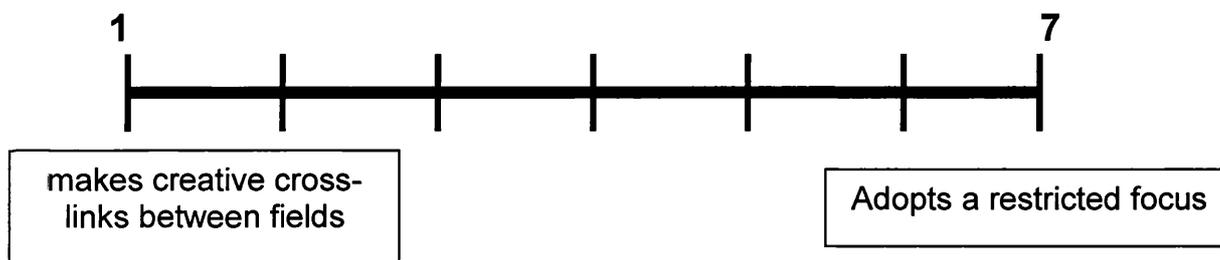
4.3 Personal Construct Psychology

This was the second framework examined in this assignment as a tool to aid reflection and to evaluate the impact of the doctoral programme on interpersonal and professional skills.

Personal construct psychology is based on a complete and formally stated theory of personality proposed by Kelly (1955). Kelly's view was that there is no objective, absolute truth and that events are only meaningful in relation to the ways in which they are constructed by individuals. The central philosophical assumption underlying personal construct theory is constructive alternativism, suggesting that there are alternative ways of considering the situation around us (Walker, 1996). This allows us to alter our perspectives to acknowledge change. It is beyond the scope of this assignment to engage in an in depth discussion of Kelly's proposition. Instead, the methods developed from Kelly's theory, i.e. repertory grid techniques, will be compared and contrasted with the 360-degree feedback method and their relevance to assessing change in interpersonal and professional development will be examined. Walker (1996) claims that *'Personal Construct Psychology (PCP) offers a standpoint from which individual perspectives are valued. Consequently it is a powerful theory when adopted by educational psychologists as a framework for considering the complex institutional, family and personal dilemmas which they regularly encounter'*.

The method suggested by Kelly of eliciting constructs and assessing the mathematical relationships between them is the repertory grid technique. A considerable variety of different forms of repertory grid techniques have been developed from Kelly's original formulation. All have the essential characteristics of bipolar 'constructs' - the dimensions used by a person in conceptualising aspects of his or her world and 'elements', - the stimulus objects that a person evaluates in terms of the constructs he or she employs. This assignment considers the usefulness of one such technique, the 'Salmon line', developed from Kelly's original framework and compares it to the 360-degree feedback approach. This technique was developed by Salmon (1988) as a way of exploring children's perceptions of an issue. This method has potential uses for reflection by adults as well. Two poles of a construct elicited from an individual are placed at each end of a line. To give an example: one of the goals listed by the 1999 doctorate course members was 'to increase the ability to make creative cross-links between fields'.

The 'Salmon line' could represent this as follows:



Course participants could rate themselves on the line at the beginning and at the end of the course.

At the beginning of the course they could be asked to reflect on the following questions, (adapted from Walker, 1996):

1. How they have come to be at their present position on the line?
2. When might they have been lower?
3. What helped them improve? Did the doctorate make a contribution?
4. If so, how?
5. In thinking of the future, what might they do to improving their position on the line?

At the end of the course, the participants could be asked the following questions:

1. Is there a difference in perceived position on the line in comparison to the beginning of the course?
2. Why was there a difference?
3. What might have happened in the intervening three years to make a difference?

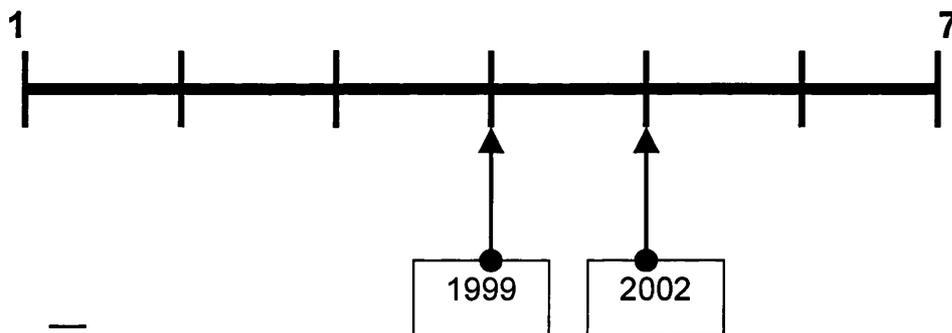
4. Was there anything the course members are doing now they were not doing then and vice versa?

PCP – applied to the self-evaluation of the effects of the doctorate course

A retrospective analysis using an adaptation of the 'Salmon line' was carried out on the groups of goals suggested by 1999 course members at the beginning of the course, as listed earlier.

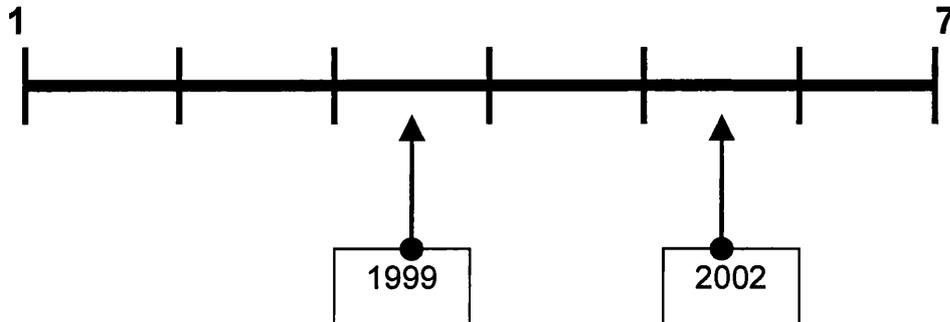
The participant's pre- and post self- ratings were as follows:

1. Knowledge of psychology (self-rating on a scale from 1 – 7)



The improvement perceived in this area is being cross-validated by the fact that one of the 360-degree items listed as 'to be fixed' ('understands the strengths and weaknesses of a wide range of approaches to assessment') disappeared from the top five priority areas between 1999 and 2002.

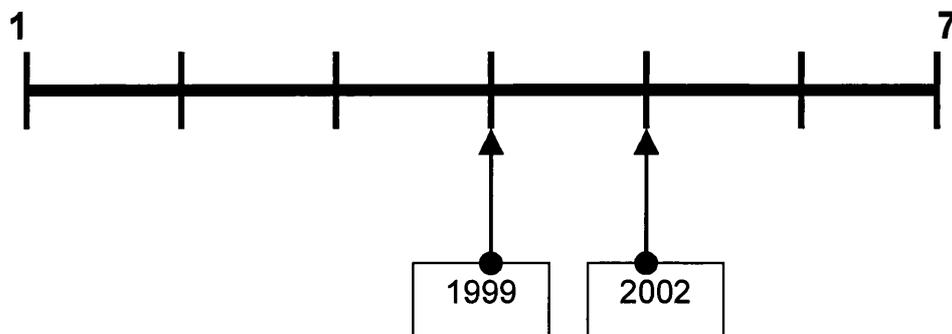
2. Research skills



This theme did not reach the top five areas in the 360-degree feedback.

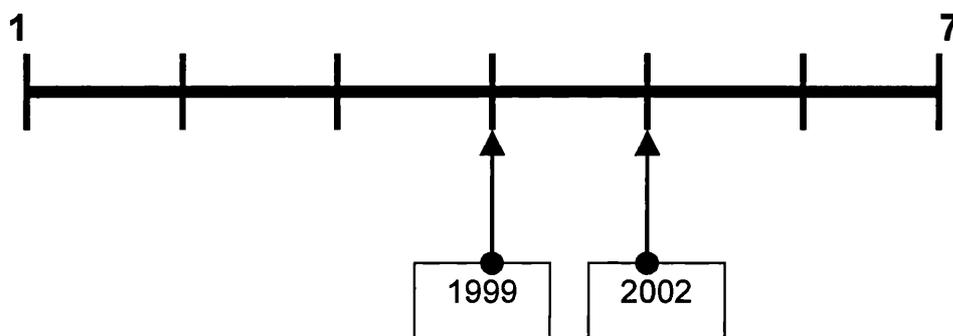
This variable was selected as one of the personal development goals first identified at the beginning of the doctoral course as of high importance to the participant. The personal perception of an improvement in research skills is due to 'learning by doing' and to the increased confidence and independence with which research tasks can now be approached by the participant.

3. Critical appraisal



No reference is made to this theme in the 360-degree feedback. This variable was another important personal development goal identified in 1999. Evidence for a perceived improvement in critical appraisal by the participant comes from feedback from the course and increased application in the workplace, for instance, when evaluating projects.

4. Creativity

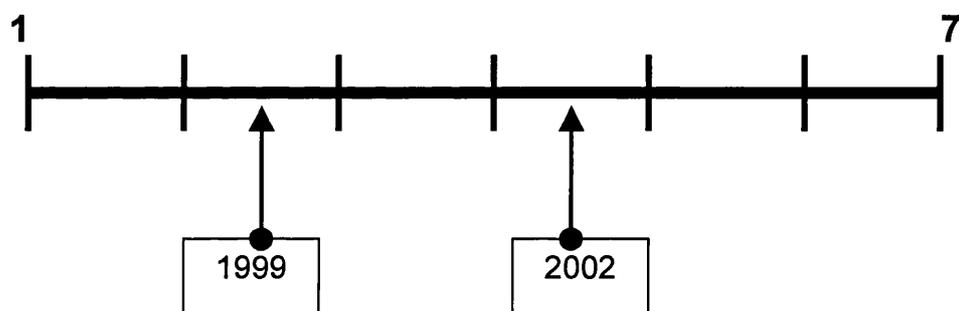


No reference is made to this theme in the 360-degree feedback. This was another important goal identified at the beginning of the course.

The fact that these three goals do not appear as improved areas in the 360-degree feedback may be due to the fact that these variables are more 'cognitive' and more difficult to quantify as behavioural items than, for instance, increased assertiveness, which registered on both evaluation tools. The PCP approach is an introspective approach, while the 360-degree approach is based on behavioural ratings. For this reason the discrepancy in results may be due as much to differences in measurement than to changes that have occurred in reality.

It is worth remembering the value of ratings where a rating of 4 stands for doing tasks 'well' and a rating of 5 represents doing tasks 'very well'. A mean rating of between 4 and 5 as an area 'to be fixed' is still a positive rating. Perhaps it is worth reflecting about that professionals working in demanding jobs involving people show natural variations in performance.

5. Interpersonal effectiveness - assertiveness and confidence



A new item to celebrate in the 360-degree feedback in 2002 ('deals with difficult situations calmly and constructively') appears to validate the improved self-rating on the confidence and assertiveness scale. This may have been brought about by having had to develop more effective coping strategies, when dealing with demanding situations during the research process, such as working with large groups of adolescents and supporting teachers in a stressful school environment. These strategies appear to have generalised to other challenging work situations.

Interpretation

The reflective personal assessment using the Salmon line shows some perceived positive changes in many areas, some of which are confirmed by and complement the 360-degree feedback.

5. The Research Perspective

5.1 Benefits of the 360-degree approach

- **Consistency and range of raters through the use of multiple sources**

In a meta-analysis of self-supervisor, self-peer and peer-supervisor ratings Harris and Schaubroeck (1988) found that there is a low correlation between different rating sources. Harris and Schaubroeck identified a total of 36 independent self-supervisor correlations, 23 independent peer-supervisor correlations and 11 independent self-peer correlations. They concluded that self-ratings were, on average, higher than supervisor and peer ratings and explained this fact by a variety of different explanations, as follows:

- a) Egocentric bias theory or the moderate defensiveness explanation
- b) Observational opportunities
- c) Differences in organisational level
- d) Professional context.

However, Harris and Schaubroeck found that peer-supervisor ratings demonstrated a relatively higher correlation.

The 360-degree feedback approach is aiming to restrict any 'self-serving' biases by combining self-rating with ratings from a range of contexts and backgrounds.

The adaptation of the 360-degree feedback version, which was used to evaluate the doctorate programme supplemented self-rating by ratings from EP colleagues and clients in schools (Headteachers and Sencos).

These multiple sources of performance ratings have the advantage of enhanced ability to observe and measure behaviours (Borman, 1974; Henderson 1984). They offer greater reliability, fairness and rater acceptance (Latham and Wexley, 1982).

In general, self-ratings in research studies tended to be higher than peer or supervisor ratings (Furnham and Stringfield, 1998). In the doctoral version, self-ratings of participants tended to be lower than peer-ratings, as mentioned previously.

One explanation for this could be cultural differences between the United States where this study was carried out and UK culture. Furnham and Stringfield (1998) identified research, which suggests that there are systematic cultural effects in job performance self-ratings, particular when compared to American culture. For instance, Fahr, Dobbins and Cheng (1991) found evidence of a 'modesty' bias in Taiwan, where Chinese employers rated their job performance less favourably than their supervisors. Similarly, there could well be cultural differences in the way professions self-rate their performance. The sample of course participants was small, but there appears a tendency for modesty about achievements in the educational psychology profession. Many EPs feel that they have

been most successful, if their intervention has been invisible, i.e. if they have facilitated positive change by others such as their clients.

Another explanation could be egocentric bias – defensiveness, or low self-esteem affecting self-ratings.

- **Anonymity**

Feedback in the 360-degree process is anonymous. There is some research evidence that raters feel differently about upward appraisal depending on whether it is anonymous or not. In a study of 38 managers and their subordinates from an insurance company, Antonioni (1994) found that subordinates felt more comfortable giving anonymous responses and had a more positive perception of the appraisal process.

- **A wider range of raters**

The 360-degree feedback process communicates the averages of at least four raters to the ratee. This decreases the probability of rater bias, if compared to single rater evaluation.

- **Convergence of others' and self ratings**

Atwater and Yammarino, (1992) found that the discrepancies between others' ratings and self-ratings, particularly if self-ratings were inflated and higher than the overall ratings by others, tend to reduce over time. Where

self-ratings are lower than others' ratings, this could act as a positive incentive.

- **Reducing professional bias**

Lichtenberg (1997), in a review of the literature on professional expertise found that experienced psychological counsellors frequently hold inaccurate or biased cognitive schemas concerning clients and produce clinical judgements that appear no better than those of less experienced professionals. However, according to Voss and Post (1988), the concept of 'expertise' is justified, if clinical problems are viewed as ill-structured problems. According to Lichtenberg clinical practice is different from other settings, since the skills of a counsellor are more similar to concept learning and categorising, compared to, say, motor skills, which are improved by, practice. An effective counsellor needs a clear understanding of what constitutes an incorrect response or an error in judgement and needs immediate, unambiguous and consistent feedback. In clinical practice these conditions are rare. In addition, clinical practice does not take place in a vacuum, but is an interactive process, which deals with the perceptions and attitudes of the client as well as the counsellor, which are often unpredictable.

The 360-degree feedback process would be a way out of this dilemma, since it provides clear and systematic feedback from clients about the counsellor's judgements and behaviours. Lichtenberg claims that many counsellors are poor at self-monitoring. Dawes (1994) argues that the

answer to this lies in the counsellors' biased self-fulfilling beliefs regarding their clients and the counselling situation which leads them to faulty and ineffective processing of the feedback available. This feedback is scarce and hit and miss, and the 360-degree approach, combined with other approaches to evaluate performance, could contribute to making it more comprehensive and systematic.

5.2 Potential limitations of the 360-degree feedback model

Sharp, Frederickson and Laws (2000) list some of potential limitations of the model as follows:

- **Limited effect on the improvement of work behaviours,**
if there is limited support in interpreting the feedback and in setting improvement goals as claimed by Hegarty, (1974) and Antonioni, (1996).
- **If research-based guidelines are not followed,**
and anonymity of ratings is not granted, ratings, particularly of subordinates will be less accurate (Antonioni, 1994). However, this applies less to the doctorate, since the ratings were peer-ratings.
- **An unrepresentative sample of raters** may bias the data and limit the usefulness of the evaluation. Raters should be selected according to objective criteria.

- **Rater bias due to differing contexts and observation opportunities**

The work of educational psychologists takes place in a wide variety of settings and contexts. In order to accumulate an objective and comprehensive picture of ratings, there would have to be lots of different raters and ratings in order for these ratings not be based on few, possibly distorted snap shots.

- **Job-specific rater bias**

Harris and Schaubroeck (1988) mention the effects of job-specific rater bias as one of the variables mediating inter-rater agreement. They found that ratings showed relatively more agreement for blue-collar and service jobs with well defined practical, and therefore more observable, routines than for professional jobs which are more flexible. The work of educational psychologists is more difficult to rate, since it is highly flexible and its structure tends to be invisible. In addition, changing contexts due to EP patch changes and to high staff turnover would affect the frequency of observations and the continuity of raters.

- **Discrepancies in ratings due to different organisational levels**

Harris and Schaubroeck (1988) list differences in organisational level of ratees as one of the reasons for discrepancies in ratings. Senior educational psychologists in a managerial role have reduced face to face contact with schools and their work is less visible to clients. This affects the frequency of visits to schools, the nature of the their relationships with clients and the opportunities for observation in action

by client raters. Ratings by colleagues are less affected by these factors.

- **Lack of continuity of raters**

A change of raters pre-post may affect the accuracy of the evaluation by introducing individual differences in rater bias.

A critique of the research evidence for the 360-degree feedback process – what is the evidence that this model is a valid measure of change in personal and professional effectiveness?

The research base for the development of the 360-degree feedback instrument and for its effectiveness draws from many disciplines in psychology, including personnel psychology, occupational psychology, social psychology, behavioural psychology, organisational psychology and differential psychology as well as educational psychology. Its scope for adaptation to other fields is considerable. The model provides new links between the different psychological disciplines and knowledge bases. This is certainly an asset.

However, the studies on which evidence for the effectiveness of this model is based, have a number of drawbacks in common. Most studies have been carried out in the United States and the view about different cultures and work climates affecting rating behaviours has already been discussed above.

In addition, the studies were affected by sampling errors, since numbers of studies and samples were small. The studies were post-hoc analyses and there is little evidence from predictive studies in the field. Furthermore, it remains to be demonstrated how much the results of one professional setting can be generalised to another. The 360-degree feedback approach is relatively new, and more research is needed on test-retest reliability of the instrument. Since the instrument is still evolving, the presentation and analysis of the feedback has been changing between the pre-test in 1999 and the post-test in 2002, so that it is not directly comparable. This makes it difficult to assess whether any changes in the feedback were due to genuine changes in the ratee's behaviour or whether there were alternative explanations for the changes, as mentioned earlier. It is only a matter of time before this particular shortcoming of the instrument can be remedied, and a standardised version of the scale can be developed, which allows easier comparison and provides continuity and information on reliability. More research is also needed to establish cross- validity by other scales. One of the ways to do this would be to compare the 360-degree method with other methods of evaluating change such as the PCP approach, which are more introspective and more suitable to eliciting cognitive rather than behavioural constructs.

The 360-degree approach is affected by the drawbacks of all rating scales such as rater bias, the ad hoc nature and lack of criteria for the

selection of raters and a considerable range of mediating variables, which affect data gathering by the raters.

In addition the 360-degree appraisal model, if used as pre-post fixed design model, is affected by some of the threats to the internal validity of such designs, as listed by Robson (1993) such as:

- **History**

Things that have changed in the participants' environments other than those forming a direct part of the enquiry (e.g. changes of jobs, position)

- **Testing**

Changes occurring as a result of familiarity by raters with the instruments and practice effects which affect their ratings. It would be difficult to develop a parallel form of this instrument comparable to reading tests.

- **Instrumentation**

Changes occurring due to raters using a wider or narrower definition of a particular behaviour

- **Regression**

If ratings were particularly high and close to the ceiling, re-testing may be affected by regression to the mean as well as by ceiling effects.

- **Maturation**

Growth or regression in the development of the participants which is unrelated to the enquiry.

5.3 Research evidence from studies of PCP in education and educational psychology

Walker, using a different technique of comparison (triad comparison) carried out development interviews in 1990 and 1994. Walker then asked the EP to consider some of the questions listed above. When examining the constructs that had been elaborated in the interviews with EPs using this framework, Walker identified a variety of personal dimensions EPs described themselves in relation to. These were

- Communication and personal style
- Perspective on the world
- Knowledge-base and
- Personal organisation.

Educational research studies using the PCP approach

There have been a large number of studies using the PCP approach in psychology and teaching, some using computer based programmes which have been developed from the original repertory grid techniques. It is beyond the scope of this assignment to review these studies. In order to examine the use of the PCP approach, the assignment selected a representative study from education as an example.

This study by Fisher, Russell and McSweeney (1991), evaluating a diploma course in a college of further and higher education used a computer aided Flexigrid. Fisher et al. asked the students to identify six items they felt to be important in connection with their diploma course.

Fisher et al found three interesting things:

1. The overriding student concerns were to do with anxiety and stress connected with the completion of the assignments.
2. Extrinsic factors took over from intrinsic ones, i.e. finishing the course became more important than its intrinsic value and
3. Tutorial support was seen to provide a cushion against excessive stress and fear of failure.

6. Integration of research and practice

The advantages and constraints of the two frameworks examined are summarised in Table 1 below:

Table 1

A comparison between the 360-degree feed back and the PCP approach

Similarities evidenced in research and practice:

| |
|--|
| Both approaches are flexible approaches with potential for adaptation to a variety of settings. Both tap individual perceptions and stimulate reflection. |
| Both approaches use 'constructs' elicited from participants: the 360-degree constructs are the items for rating, the PCP constructs are the 'elements' . Both methods convert perceptions into mathematical relationships. |
| Both methods could be used for predictive analysis establishing baselines and added value and both can be statistically evaluated. |
| Both methods are sensitive to a range of rater bias (egocentric bias (Harris and Schaubroek, 1988), professional bias (Lichtenberg, 1997), halo effects, self-fulfilling prophesies. |
| Both methods use ratings/constructs elicited in varying contexts – they should therefore not be considered as stable traits, but as states and processes |
| Both methods could combine external with self-analysis, thus leading to a more objective reality check. |

Differences evidenced in research and practice

| |
|--|
| 360-degree uses a quantitative approach based on observable, behavioural items - PCP uses a qualitative approach based on perceptions. One of the critiques of repertory grids is that it demonstrates a ' nomothetic positivism', although it is based in 'the shifting sands of semantics' (Yorke 1978); the repertory grid approach uses a positive method of analysis in a non-positive methodology. |
| 360-degree elicits ratings from a group of people including the self – ratings from participants. This reduces rater bias (multiple sources: Latham & Wexley, 1982), consistency of range of raters (Harris and Schaubroek, 1988), convergence of others' and self-ratings (Atwater & Yammarino, 1992). - PCP elicits mainly personal constructs from individuals, although these could be pooled |
| 360-degree items are uni-polar whilst PCP constructs are mainly bi-polar |

Research findings on the 360-degree feedback method highlight a variety of ways of reducing rater bias and professional bias. These findings also demonstrate that self-ratings and self-reflection are not enough, since they do not allow correction for any faulty perceptions and distortions in thinking. Schon (1987), argued that professional education should concentrate on enhancing the professional's ability for 'reflection-in-action', which is learning by doing and developing the ability for continued learning throughout the professional's career.

6.1 The usefulness of the two methods described in assessing change in personal and professional skills

Both methods described above were useful methods of evaluating change brought about by continuing professional development. The 360-degree method established a base-line and provided more objective information, whilst the PCP method was retrospective and more introspective. There is a growing evidence base that the 360-degree approach is a valid and multi-perspective method of evaluating professional development. However, any such evaluation needs to be aware of the professional context in which it takes place, and needs to control for any potential contaminating variables, as highlighted in the research findings.

6.2 Is the continuing professional development doctorate one way of re-inventing the professional self?

Both methods of evaluation demonstrated some improvements in the course participant's personal and professional skills. The 360-degree method identified some positive changes in psychological knowledge, an improvement that is one of the targets of the doctorate. In addition the positive 360-degree baseline feedback helped to maintain motivation and enthusiasm during a difficult period in the local Service and in the LEA.

6.3 A model for assessing change due to a continuing professional development programme such as the doctorate.

Such a model, drawing together findings from context, practice and research emerging from this assignment, would involve a matrix of multi-method evaluation, combining predictive and retrospective analysis such as pre-post measures on the 360-degree instrument and other validating measures such as the PCP method. The model would combine measures with a behavioural/observational focus such as the 360-degree approach, with more introspective and cognitive methods of reflection, such as the PCP approach. Personal constructs could be validated by colleagues, by reflecting with them on change in professional development. The model would combine quantitative and qualitative methods including self-reflection. It would include an analysis of whether changes are reflected in the work situation, such as increased engagement in EPS and LEA activities, particularly in research. This analysis could be carried out during supervision and during the appraisal process. The model would look at

patterns of promotion of the course participants within their Services and beyond as well as increasing participation in training establishments such as University departments. An analysis of improved knowledge and creativity in psychology would look at research projects and publications involving the participants. The model would look at the impact of the participants' research findings on the real world in terms of impact on the profession, on LEAs and on national policies and initiatives in education.

Research and practice in this area can be brought closer together by continuing, dynamic and evolving 'plan-do-review' cycles. This could be done by trying out and improving frameworks such as the 360-degree feedback method.

There is no doubt that research is the key to these cycles. Gaps for future research into frameworks for evaluating change in personal and professional development, identified in this assignment, were the following:

Participants

Random selection of raters, some of them more critical;

Continuity of raters pre-post;

Variety of raters, complemented by self-ratings;

Measurements

Multi-method measurement, combining quantitative and qualitative measures. Behavioural measures complemented by cognitive/introspective measures. Studies examining the reliability and validity of instruments, which are controlled for rater bias;

Design

Predictive as well as retrospective studies;

Generalisation

Research into the generalisation of methods across different cultures, contexts and professional settings;

Interpretation

Increased consistency and pre-post comparability of feedback;

6.4 Why should educational psychologists carry out research?

As part of a major strategic review of educational research in the UK, Webster and Beveridge (1995) were carrying out a small study of educational psychologists engaged in educational research. Webster and Beveridge reformulated important questions regarding the place of research in the practice of educational psychology. In order for this research to have an impact on policy, which, according to Tizard (1995) it did not, this research has to be needs led and based in the real world. Several authors make this point in related fields. Hardy (1995), a clinical psychologist, claimed that '*if research is needs led, goals of research are aligned with goals of the setting*'. Similarly, Webster and Beveridge (1997) stressed that for EP research and development to have the best political impact, there was a need for a high level of congruence between it and what the LEA wanted to decide on and wanted to hear.

Who is in a better position to gauge just what the LEA wants to hear and what schools need than the EP practitioner-researcher, who has inside

knowledge from daily practice? The promotion of this particular EP role through continuing professional doctorates appears to be logical step.

6.5 Why would educational psychologists want to carry out research?

In addition to professional reasons such as systematically developing knowledge and skills and shaping one's profession, Milne (1987), a clinical psychologist, quoted a variety of personal reasons including curiosity, personal pleasure, intrinsic satisfaction, challenge, goal setting, the wish to maintain intellectual sharpness, particularly at later stages in people's career as well as a break from everyday routine.

'Evidence based practice' is a 'buzz' word in the Health Service right now and research is creeping back into EP practice in small scale, largely unpublished, local action research projects. These, however valuable, rarely reach publication stage, perhaps because practising educational psychologists are far too busy with their fieldwork.

The newly created doctorates in educational psychology can change all this, by putting research on the LEA map. There are some signs that teachers engage in more CPD research as well. They would benefit from the support of EPs who have undergone the research process themselves.

Evidence from research on the value of research is restricted to studies establishing the frequency of educational psychologists engaged in research and debating its value for the profession, such as the studies by

Wedell and Lambourne (1980) and the overview by Webster and Beveridge (1997) quoted earlier. These relatively small scale studies do not provide evidence of the effectiveness of research in EP practice per se, if compared to other ways of working, for instance, carrying out statutory assessments of individual children.

One way of establishing the effectiveness of EP research would be to trawl EPS archives and professional journals for a meta-analysis of the effectiveness of past studies and projects, published and unpublished. A random and large enough sample of studies could be tracked through EPSs and LEAs and Government initiatives as to their impact. Examples of action research, which has broken through the obscurity barrier and influenced Government policies, are the research on 'Circles of Friends' and on 'Early interventions'.

It is the conclusion of this assignment that the continuing professional doctorate programmes in educational psychology are effective in helping individual professionals to evolve, thus contributing to the growth of the profession as a whole, by raising the profile of research in service delivery.

7. Some concluding remarks - a personal view of change in the last 3 years

Knowledge of psychology

During the course I gained additional knowledge in psychology through the teaching input of my Tutors, which was complemented by 'leading edge days'. These leading edge days covered topical and challenging areas and included presentations by specialists in their field. Quite often skills gained during such days were put to good use in the Service and shared with colleagues and schools. I also learnt a lot from the ongoing feedback by the Course Tutors, from discussions with the other course participants and due to reading and reflection for the major research project and the assignments.

Research skills

These skills improved through learning-by-doing, guided by the supportive feedback of my Course Tutors, through trial and error, through reading and through discussion with and learning from colleagues on the course.

Critical appraisal

I feel that I have become quicker and sharper in analysing information in general and in evaluating other people's research in particular. This was achieved through learning-by-doing and through practice as well as increased knowledge of research designs.

Some final personal points

In addition to the evidence from two methods to evaluate change, it is my personal belief that the following changes in personal and professional skills have been brought about by the participation in the doctorate programme:

When carrying out the research for the doctorate, interpersonal skills had to be used to the full with often overstretched teachers in the participating schools, and with the pupils in the experimental groups, particularly the disinterested ones. I feel that as a consequence, these skills have been developed further.

The research involved innovative approaches, which appear to have had significant positive effects on the participants, as demonstrated by the statistical and qualitative evaluation of the project, which will be reported in the Thesis. These effects have also been positively commented on by the pupils and the teachers in the school.

The confidence and additional knowledge gained on the course motivated me to apply for a senior educational psychologist post with behaviour as a specialism in my Service and to play a more active and influential role at a managerial level, bringing to bear the experience gained. One of the responsibilities of the senior EP post is to manage a range of novel projects aiming to improve behaviour support to the LEA's schools.

The research experience gained provided me with improved methodology to manage these specialist projects, such as the pilot project for LEA wide behaviour support (the 'GO') project as well as the 'National Pyramid Trust' project, which targets shy and quiet children in a preventative way and is modelled on a voluntary national initiative.

Some of the knowledge and experience gained from the doctorate has been shared with colleagues; for instance, colleagues have been supported in some successful interventions with pupils experiencing severe examination anxiety or separation anxiety. Similarly, research knowledge and skills gained are very useful in line management responsibilities of colleagues who are at earlier stages of a doctoral programme, and provided me with valuable first hand experience to support these colleagues through the ups and downs of participating in such a programme, while doing a demanding job.

Participation in the continued professional development doctorate has been an incentive to learn by doing and to try out new things such as to develop increased competence with computers and familiarity with software packages such as SPSS. I feel particularly pleased to be part of the very first cohort of the doctoral course at UCL, and to enjoy the stimulation of lifelong learning and the thrill of the unpredictable and creative adventure of doing something completely new.

One of the most enjoyable spin-offs of the doctoral programme has been the opportunity to meet regularly with new friends during the sessions at UCL and to share and discuss interesting topics.

This subjective reflection on the impact of the doctorate programme supports the conclusion arrived at earlier through a more objective evaluation by two different measuring instruments, that this programme has helped me to grow personally and professionally.

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