AN EVALUATION OF THE EFFECT OF THE
CLASSROOM ENVIRONMENT ON PUPIL BEHAVIOUR

by

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SYNOPSIS

This paper evaluates the effect of the classroom environment on pupil behaviour. It is mainly concerned with pupils who present emotional and behavioural difficulties (EBD), but not exclusively so. Reference is made to school communal areas and residential accommodation, as well as the classroom. The review of the literature is divided into the categories of, visual, auditory, thermal and spatial, with a section on empathy and one on feng shui. The research methodology is qualitative, based in the socio-anthropological paradigm. It is an empirical inquiry collecting data by means of case studies and Internet research. The case studies are of three different types of schools: an independent, mainstream school, an EBD school and a Pupil Referral Unit (PRU). The Internet research is of OFSTED inspection reports from twenty EBD schools. The conclusions reached are supported by the writer’s professional experiences, as a teacher of children with EBD.

The research found that the built environment of a school does have an effect on the behaviour of all that work there. Appropriate accommodation can raise the effectiveness of the school and encourage positive behaviours. However, schools often have problems securing sufficient finances to adapt and maintain accommodation. Where accommodation is deficient, it is the teacher’s role to counter this by effective classroom organisation. Therefore, although a facilitating environment is desirable, the teacher has the greater effect on the behaviour of the pupils. These conclusions have training and financial implications with greater co-operation needed between schools and LEA’s. The study also suggests that EBD schools need to advertise their accomplishments, improving their status, to be seen and applauded as centres of expertise.
My acknowledgements to staff of the following schools, and others, without whom this paper could not have been written:

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INTRODUCTION

In 1990, after 15 years of teaching, the writer accepted the position of a year 7/8 form-tutor in a residential/day school for boys of secondary age with emotional and behavioural difficulties (EBD). Initially, their challenging behaviour, combined with a non-facilitating classroom environment, made the task of educating these children almost impossible. Eventually after developing understanding of the boys, engaging their trust and adapting the accommodation to fit their needs, a base was created that provided opportunities for learning instead of extending the scope for poor behaviour. Staff support and positive classroom management helped produce a classroom which felt comfortable and safe for staff and pupils alike and most importantly ‘breathed education.’

The adjacent science room was later occupied by a newly qualified teacher (NQT), who was also having inaugural problems. This NQT spent many hours devising lesson plans and developing good relationships with the boys, outside of the classroom. However, there was hardly any time spent in physically preparing the classroom for those lessons.

“Student teachers gave almost all their planning time to subject matter, less to organisation and little to “tone” or desired classroom atmosphere” (Wragg, 1993, p.172).

Subsequently the teacher’s lessons created opportunities for pupils to be disruptive, which could have been foreseen and avoided (OFSTED, 1999c). This graduate’s training had been lacking in the environmental organisational part of classroom management and had neglected to enumerate that the classroom environment is a form of non-verbal communication with the pupil. The writer’s interest in classroom accommodation with reference to presenting behaviours was motivated by observing that teacher’s difficulties. This study attempts to clarify the effect of the classroom environment on pupil behaviour.
This review examines published research and elucidates presently accepted knowledge on the effect of the classroom environment on the behaviour of the pupils. It also alludes to the school environment as a whole, as the classroom is part of that unit. There is some reference to commercial organisations and their environments. The review will especially, but not wholly, look at investigations connected with children that have emotional and behavioural difficulties and includes some aspects of their residential and whole school provision. For the purposes of this paper, the writer has determined that “behaviour” is defined as attitude to learning, self-esteem and care of the immediate environment.

Particular authors and their research helped the writer in deciding how to categorise the literary review. For instance, Bull and Solity (1987) consider that all aspects of the classroom environment should encourage teaching and learning and desired behaviour for children of any nature. The authors’ describe a “talking classroom” which works for and not against the teacher. They ascertain that the arrangement of the room and the materials in situ can ‘set the scene’ for appropriate behaviour. They divide the classroom into the physical elements of visual, auditory, thermal and spatial and the organisational elements of fixtures, fittings, furniture and storage.

The therapeutic community of Peper Harrow was another influence in the research design. The staff at Peper Harrow believed that if adults could be vexed by difficult working and living environments, then the effect on a child with emotional and behavioural problems could only be imagined (Rose, 1990). The writer considers that the ideas used to improve the environment, implemented in this therapeutic community could be adapted and used
effectively in most classrooms. Warm colours, empathic lighting, even the height of the ceiling and carpeted flooring to control noise level are just a few of their recommendations.

Gill (1977) also sustains that behaviour, in any type of child can be determined by the function and condition of the physical environment within which the behaviour takes place with the variables influencing behaviour being:

- size, shape and arrangement of rooms and passageways,
- number and size of windows and doors,
- arrangement of furniture,
- interior illumination,
- temperature,
- noise,
- odour,
- colour.

Gill’s research claims that behaviour reflects its physical surroundings, but that it is the individual teacher who has the greater effect on the pupil.

Cooper, Smith and Upton (1994) recognised three components that have an effect on behaviour in the EBD classroom:

- The social one of teaching style and group arrangement.
- The educational one of curriculum, selection and presentation.
- The physical one of the classroom surroundings, furniture, materials and equipment.

This behavioural approach of considering that the child’s behaviour is shaped by external cues and reinforcers concurs with Gill (1977) and firmly puts problems with behaviour as the teacher’s responsibility not the child’s fault. Cooper and Upton’s (1994) social and educational components of teaching style, and selection and presentation of the curriculum, is a fundamental part of classroom management, but unfortunately is too large a topic to include in this study. However, the effect of the teacher’s management of group arrangements and the physical components of the classroom is intrinsic to the writer’s research.
After considering the literature, the writer has divided the review into four broad categories:

1. Visual
2. Auditory
3. Thermal
4. Spatial

These are followed by a discussion on empathy (5.) and a short critique of feng shui (6.). The latter is included as the writer identified that the feng shui art of arranging living environments is being increasingly practised in contemporary life and is therefore worthy of discussion. Some of the categories will overlap, as they are inter-independent.

A.1. Visual category

In this section the writer will consider, lighting, colour, display and the overall visual impact of the classroom and the school, as a whole.

The importance of lighting was recognised in the first statutory building regulations made under section 10 of the 1944 Education Act (DES, 1967a). This Act pointed out that low quality lighting led to poor work, slower reading, more mistakes in writing and a larger number of accidents and breakage. Physically insufficient lighting could cause eye problems and behaviourally pupils and staff found it more difficult to concentrate and tired more easily. It is therefore worrying that in the Chief Inspector of Schools’ annual report for 1999, inadequate lighting was still found to be a problem in schools in England (BBC Online, 2000). The amount of illumination in the classroom is determined by artificial and natural light (Bull and Solity, 1987) and the colour scheme (DES, 1969). Lighting creates an atmosphere and is therefore one of the ingredients of a successful school building (DES, 1967a). Well-lit rooms feel more open and spacious (Exxon, 1998) and this may have a bearing on the performance (McCormick, 1957) and behaviour (Gill, 1977) of the people
working there. Too little light can cause frustration and bad temper, as the pupils are struggling to cope. Conversely, too much light can cause problems, such as sunlight creating dazzle on glossy desk tops and white boards (DES, 1969). Windows allow light to enter the room but they can be a cause of unwanted distraction if they overlook areas of activity, such as a playing field (Bull and Solity, 1987).

Colour schemes can be an irritant or a panacea, so should be carefully chosen to ensure a comfortable environment (DES, 1969). The colour of a worktop can affect the ease of seeing the work itself, as well as adding to the overall light in the room. Experiments with colour have been conducted in such places as psychiatric institutions and prisons (Lee, 1999). Violent prison inmates for example were calmer after spending time in a pink room. Other studies, looking at how colour affects emotions and behaviour have shown that correct use of colour can increase motivation, learning, retention and recall by as much as 55-78% (Silverman and Pitu, 1996). Some of the results were that the colour orange was found to soothe anxiety, yellow to resolve conflict and green to ease stress. A three year study by Henner Ertel, director of an institute for rational psychology in Munich, attempted to show how colours have an influence on learning capacity (Lee, 1999). Light blue, yellow, yellow-green and orange environments increased intelligence quotient (IQ) and made children more alert and creative. White, black and brown lowered IQ and made the children more listless. White was also found to brighten a room too much, causing distraction. Ertel’s research showed that colour can be used to improve work attitude and concentration.

An attractive and stimulating environment can be achieved by the use of high quality display which enhances and excites work in progress, as well as recording and celebrating completed studies and increasing self-esteem (OFSTED, 1993d). This visual improvement can partially
overcome deficiencies in accommodation (OFSTED, 1999c). Points of visual reference, such as charts and written instructions have to be clearly available to all pupils. This is something that is under direct teacher control and has a positive effect on pupil behaviour and work output (Wheldall and Merett, 1989). Before the lesson it is a good idea to sit where the children will be sitting, evaluating the area from their visual perspective, so that any potential problems can be averted (Stone, 1992).

The transformation of a classroom into a more pleasant working space need not be elaborate or expensive to accomplish. In the novel “Evening Class” by Maeve Binchy (1996), a dusty school annexe was re-created into an effective adult learning area by such simple additions as posters, decorative tables and paper flowers, provided by the teacher. The adult learners were impressed with the care shown by the teacher. Even children with emotional and behavioural problems can be influenced by good role modelling and adult perseverance, to care and have pride in their surroundings. The writer has found that pupils with ‘challenging’ behaviours, given the right guidance are quite able to maintain a pleasant visual environment. The pupils of one EBD School, known to the writer, were amused to see the headteacher carefully stepping on spittle, in order to obscure it from visitors’ eyes, as they were shown around the school. This anxiety about how the school appeared to others was initially ridiculed and then gradually adopted by the boys, as they saw further examples of teachers caring, such as picking up litter and erasing graffiti. As the pupils developed pride in the school, they became less disruptive, supporting Stone’s (1992) findings that a tidy, well organised school, has better behaved pupils, than one where clutter and rubbish is left to accumulate. There is a popular saying that declares ‘you never get a second chance to make a first impression.’ A prospective client paying a first visit to a company's premises will make initial judgements about that company. This opinion is formed by the locality, the building, the entrance and
then the interior before actually meeting any representatives. Of course, there are other factors influencing the client’s decisions, but this first impression will be long lasting and slow to change. This forming of an initial opinion also applies to educational establishments. This writer believes that the pupils’ first impression is critical in helping to determine their future behaviour in the classroom. The teacher ought to be able to prepare the room to accommodate the kind of pupil, who will be working there and later this environment can gradually be adapted and attuned to fit the class and their needs.

The exterior of the school has a high visual impact with litter, graffiti and damage reflecting badly on the premises. The opening episode of the 1999 BBC1 television drama “Hope and Glory” placed an intense emphasis on the appearance of a school that was about to be closed. There was an intended connection made between the neglect and abuse of the building with the low aspirations of the pupils and many of the staff. The camera work showed an uncared for environment of debris, defacement and peeling paint. The fictional headmaster designate commented that if the adults did not look after the school environment, then how could the children trust those same adults to look after them. Uncared for environments have a depressing effect on both staff and pupils. Nevertheless, whilst there is always emphasis on raising standards within schools, the buildings themselves usually only receive attention when they are falling down. This is even though dilapidated sites encourage a lack of respect for property and a continuing cycle of abuse (DES 1989a) and (Cole, Visser and Upton, 1998)

The aforementioned DES report of 1989, on the provision for pupils with emotional and behavioural difficulties in maintained special schools and units, found many examples of buildings with poor visual impact. They also found schools where the opposite was true:

“Standards of maintenance and decoration are unusually high and boys appear to respect the fabric of the building and to take pride in helping to create an attractive environment” (DES, 1989a, p.4).
Architects designing schools in the 1960’s and 1970’s, used standardised building methods creating schools with little character, flat roofs and high maintenance costs (Purchon, 1991). Currently one fifth of secondary schools in England are struggling to cope with buildings that have leaking roofs, broken windows and generally inadequate buildings (BBC Online, 2000). In addition, many residential schools are sited in converted country mansions with large, attractive grounds but expensive upkeep. This makes it difficult to repair damage quickly, as recommended by the Elton Report (DES, 1989b), so there is a downward spiral of the building becoming more and more unattractive and increasing incidences of ill-treatment. However well intentioned the staff might be, an environment is thus created that is very difficult to make aesthetically pleasing. The literature indicates that the visual elements of the environment have a definite affect on emotions and behaviour.

A.2. Auditory category

In this section, the writer will consider flooring, noise and the use of music, as an influence on behaviour. Research and everyday experience confirms the fact that noise can be subjectively annoying to people and may cause disruption (McCormick, 1957). Carpeted flooring assists in the control of noise level (Rose, 1990), and helps create a much calmer environment than one without soft flooring (Montgomery, 1989). OFSTED (1999d) found in their review of special schools, secure units and pupil referral units that harsh acoustic conditions can be caused by large, uncurtained window areas, hard floors and ceilings and an absence of soft furnishings. The inspectors acknowledged that schools for pupils with EBD are recognising the positive influences of a softened acoustic environment and using finances for carpets, chairs and even curtains.
It seems obvious, but to help a child, who is easily distractible, the distractions in the environment ought to be decreased (Roth and Earl, 1995). In teaching, there is a heavy reliance on verbal communication, so the need to avoid distraction and the ability to be heard without repetition is of considerable importance. Rooms that echo, because of for instance, high ceilings and a lack of soft furnishings, make it difficult for pupils to listen as a class. Noises from outside, next door or the corridor can also create problems of distraction for the pupils and associated behaviour management difficulties for the teacher. Long corridors that have high ceilings and hard flooring can create noise by being the cause of shouting and argument (Cole, Visser and Upton, 1998). Narrow corridors and stairways lead to congestion and opportunities for bullying (OFSTED, 1993a).

Breaktimes are often a source of conflict in schools and one school with such a problem decided to introduce music at the beginning of the lunchtime break. The children responded to this by being more calm and orderly and interacting positively with other children and adults (Wilkinson-Tilbrook, 1997). Clare (1998) reported on a small-scale research on the effect of background music in classrooms, carried out by Dr. Susan Hallam and Georgia Katsarou of the London Institute of Education. It showed that children learn more and are likely to be nicer to one another if pleasant, calming music such as Albinoni’s “Adagio in G minor” is played to them. Conversely, aggressive, exciting music such as John Coltrane’s, “The Father, the Son and the Holy Ghost” caused their educational performance to fall and their behaviour to become more anti-social. It therefore appears that music could have some effect on behaviour and cognitive processing, but further research is required. Current literature suggests that the acoustic environment can contribute to patterns of behaviour in the classroom.
A.3. Thermal category

Here, the writer found very few literary references. Health and safety regulations require that the school maintains reasonable working conditions with a minimum temperature of 16 degrees centigrade (Health and Safety Executive, 1992). The temperature of the classroom is important for the well being of the pupil, as a classroom that is too cold or too hot can increase distractibility and promote poor behaviour (Bull and Solity, 1987). In the writer’s own experience inability to keep the classroom at an ambient temperature can result in a breakdown of teacher authority. The pupils lose concentration, become fractious and tempers rise, as they become more uncomfortable. The equipment necessary to achieve an ambient temperature, such as fans and window blinds can in themselves cause distraction and recalcitrant behaviour. Great care is needed when using temporary appliances during extremes of hot and cold weather. This is particularly relevant to mobile classrooms and the use of portable gas heaters (Health and Safety Executive, 1992).

Nowadays most classrooms have central heating but few have air conditioning, which is especially important for some classrooms, such as the Food Technology room. Inadequate ventilation is found in many schools in England (BBC Online, 2000). Teachers cannot alter weather conditions but they can be alert to their effect and relax rules, such as the wearing of ties in hot weather (Lee, 1976). They also need to be receptive to the needs of the pupils, maybe having to change the pace and direction of the lesson. The pupil, especially the EBD child, needs to be physically comfortable to be able to relax and be receptive to teaching. Maier, (1981) found that in the residential setting, if a child’s bodily comforts were being met then they felt wanted and reassured. This positive state of mind is also necessary in the classroom.
Although there is a scarcity of literature, what exists suggests that thermal conditions play an important part in creating an ambient environment, which is necessary in an effective classroom.

A.4. Spatial category

In this category, the writer will consider pupil’s spatial requirements, the classroom fit for task, suitability of classroom furniture and pupil groupings.

It has been suggested that the answer to controlling noisy difficult classes is to argue for the largest, best-fitted room (Montgomery, 1989). The DES in its accommodation requirements for children with SEN (special educational needs) in ordinary schools, states that they should be able to:

“....work with a minimum of disturbance from the proximity of other children or from circulatory movement” (DES, 1984, p.12).

When children are tense, they need more distance from others, as stress necessitates larger buffer zones (Horowitz, Duff and Stratton, 1970). ‘Buffer zone’ being the area of space around a person that enables them to feel that they are not being intimidated. OFSTED (1999d) found that schools with inadequate classroom accommodation were primarily lacking in floor space. Inadequate space can cause children to irritate, tease or hurt each other and thus create a low level of attention to work (Bull and Solity, 1987). Sometimes LEA’s do not uphold even the legal requirements for space per pupil, a failing often ignored by Governments under financial constraints (Cole, 1986). EBD children are particularly intolerant of an inadequate environment and need sufficient individual space (OFSTED, 1999d) with even a personal, safe space for their own belongings (Maier, 1981). They also have specific spatial requirements for such needs as counselling (DfE, 1996) and “time out” or quiet rooms (Cole, Visser and Upton, 1998). Even children with no special educational
needs require enough space, so that they do not feel crowded in by weight of numbers (HMSO, 1993).

Shortage of overall accommodation space in schools can lead to rooms being used that are inappropriate to the lesson, which can then result in poor behaviour from the pupils (Agar, 1998). Secondary special schools, that are required to teach the National Curriculum with limited resources and/or space, often have to face this problem. Michael Marland, headmaster of North Westminster School, is totally against multi-purpose spaces. He believes that the quality and suitability of the built environment can make the pupils either gentler or tougher in their behaviour (Purchon, 1991). An appropriate environment helps children enjoy what they are doing (Thomas and Martin, 1993). The writer experienced the effect of a new school library, which acted as a catalyst for improving reading and studying, in boys who had previously shown no interest in the written word. It is sometimes helpful to have a whole staff review of accommodation to find ideas for a more creative use of the available space (Stone, 1992).

Commercial companies with greater resources than schools, realise that productivity will improve if their employees are able to work in a comfortable and practical environment:

“We wanted to use the work space to aid efficiency and support a productive and pleasant work environment “ (Exxon, 1998, p.2).

The teacher has to overcome accommodation shortfalls, frequently without adequate financial resources. Successful teachers are able to make selections from their repertoire of personal and professional skills including, where to place tables and chairs, where to stand and how best to deploy resources (Wragg, 1993).

“....the amount and arrangement of work space is a potentially important variable in performance and human comfort and welfare....” (McCormick, 1957, p.349).
The ecology of the room has an effect on work output and behaviour with the best staff being able to foresee and avoid possible opportunities for pupils to be disruptive (OFSTED, 1999c). The teacher is responsible for the layout and organisation of the classroom (Galton, Simon and Croll, 1980). Such preparation as the careful planning of storage facilities and knowing the procedures to use them, are vital as a base for learning (Wheldall and Merett, 1989). Patterns of movement have to be anticipated so that the collection of necessary materials is not an instigator of disruption (Gray and Richer, 1988).

Part of the teacher’s planning is to assess fixtures and fittings for their aptness for the task and the pupil. Suitability will ensure comfort and increase the opportunity for pupils to produce credible work. The correct height of chair and desk is an important consideration, which can cause major frustration if unsuitable (Montgomery, 1989). The writer witnessed the effect of a mismatch between furniture and child, when new desks were delivered that had a shelf underneath the writing area. The class had been looking forward to their new furniture and indeed had participated in the choice. Unfortunately, this was found too low for one child who kept on hitting his knees. After trying and failing to remove the shelf, the desk was picked up by the pupil and hurled to the other side of the classroom. It was unfortunate that the headteacher saw this episode and rushed into the classroom, being more concerned about the furniture than the student. It would have been easy to pre-empt this problem and to have had the forethought to order desks that suited all sizes or without shelves.

The National Union of Teachers (1988) states that in mixed sex classrooms, seating ought to be arranged, so that girls are not marginalised by boys taking up more than their share of space. This is especially relevant in EBD schools where numbers of girls are often low and subsequently their needs may take second place. Wheldall and Olds (1987) conducted a study
that examined the effects of mixed versus same-sex seating arrangements in two Primary school classes. The results clearly showed that on-task behaviour was higher and rate of disruption lower, when children were seated in opposite sex pairs in rows of double desks. Placing the furniture in certain ways encourages or discourages interaction between the pupil and teacher, or pupil and pupil. Such ecological factors have a strong effect on classroom behaviour. The writer knew of one teacher of English, who sat the pupils so that they all faced the wall, when written work was required. The pupils then moved the chairs to the other side of the desks facing the centre for group work. This increased on-task behaviour and work output, but had taken a while to achieve without disruption.

Wheldall and Olds (1987) found that group seating encouraged chatter and interference with others. Groups have their place in the classroom, as resources can be shared and social development is nurtured, but for this to be effective, it requires detailed preparation and careful management (Alexander, Rose and Woodhead, 1992). The classroom setting ought to be modified to suit each lesson. (Wheldall and Merett, 1989). The Plowden Report on Primary schools (DES, 1967b) states that a combination of individual, group and class work is recommended, resulting in:

“…. a highly complex, dynamic ‘system’ which permits, and in fact specifically encourages, differentiated treatment for individual children.”

(DES, 1967b, p.48).

It can be seen that seating arrangements are an effective and powerful means of classroom organisation for the teacher (Wheldall and Olds, 1987). They can act as a useful bridge, whilst other behavioural skills are learned (Wheldall, Morris, Vaughan and Ng, 1981). Capable teachers are effective in the practical skills of preparing seating arrangements and ensuring access to resources with minimum disruption (McNamara and Moreton, 1995) and (OFSTED, 1999c). This high level of direction requires that the teacher gives constant visual sweeps of
the room and vigilantly checks the items that need to be moved, depending on the activity or
the needs of the class (Wheldall and Merett, 1989). Such a high level of organisational ability
is probably unique in the world of work (Moyles, 1992). It is the teacher’s role:

“... to create an orderly environment (not necessarily a quiet one) in which
effective learning and good behaviour are encouraged to issue, to make it
possible for great things to happen” (Stephens and Crawley, 1994, p.86).

Newly qualified teachers ought to be able to create and maintain such a purposeful and
orderly environment (DfE, 1992). However, the focus of much teacher training is subject,
rather than child orientated. They have little knowledge of how to mould the environmental
space to accommodate the child’s needs (Jordan and Powell, 1995).

The literature shows that the amount of space does have an effect on the behaviour of the
pupils. But that an effective classroom manager can usually overcome any negative factors, as
long as it is realised that this is one of the teacher’s responsibilities:

“In preparing the room the teacher is literally setting the scene for the
events that will take place during a teaching session” (Bull and Solity, 1987,
p.55).

A.5. Empathy

The previous categories contribute to an empathic, facilitating environment:

“A house that smiles, props which invite and space which allows” (Redl

Such an environment contains and reassures, with the psyche and emotional well being of a
person being nourished as much as the body (Rose, 1990). This belief is epitomised by the
staff at Peper Harow Therapeutic Community, who state that:

“... if the adult world was to be true to its word, that it did respect the
individual youngster, then the facilities for everyday living had to match
that message” (Rose, 1990, p.85).

OFSTED (1999c) found that the quality of accommodation in EBD schools varied widely
with some schools having good buildings in spacious, pleasant environments, whilst others
had poor accommodation with limited specialist facilities. However, the overriding principle for success was the ability of the school to make the best of what they had, with the staff providing a stimulating and cared-for environment. A policy for immediate repair was central in achieving this standard of accommodation. The pupils then responded to this by looking after the building and equipment within it, even helping to repair any damage. The DES (1989a) survey found that some schools negotiated contracts with parents, to make good any damage caused by their child, whilst other schools appealed directly to the pupils themselves.

Maier (1981) suggests that physical comfort can be a prelude to care. If a child is shown that the school attends to their immediate environment in an empathic manner, then they will be more willing to allow staff to care for them. Just as a parent makes sure that a home is as ‘child friendly’ as possible, so should the school change or adapt fixtures and fittings that could cause problems. Such simple effective alterations, as the re-hanging of an inside opening door, to avoid barricades being constructed by agitated pupils (Maier, 1981). This type of preparation of a classroom, combined with consistent routines and rules, gives pupils a safe, comfortable environment, where they feel respected. As the students begin to manage their own feelings, then they can gradually cope with a more complex environment (Roth and Earl, 1995).

An empathic classroom environment gives pupils the comfort and stability, that they need, to enable the development of positive behaviour and learning skills. The writer has found that if the whole school follows this ethos, then the growth in the pupil’s development is accelerated.
A.6. Feng shui

A short critique of feng shui is included, as this art is directly concerned with adapting environments and therefore relevant to a study on the effect of the environment. Feng shui is becoming increasingly evident in the western world, with interest being shown by a variety of people from professionals to private individuals. These people are seeking the advice of consultants from the different schools of feng shui. The phenomenon has taken about 3,000 years for the West to discover (Eurofile, 1997). Feng shui originated in China and then spread to other parts of the Orient, where it is taken very seriously. It is claimed that re-designing room layouts can create good feng shui, which attracts abundance in all things and better working relationships.

To develop a positive working environment in their new headquarters near Heathrow airport, British Airways (B.A.) sought the help of a feng shui expert (BBC Online, 1998). Although there is little scientific evidence to support the claims, B.A. followed the advice that people work better with plentiful light and the presence of water and that different colours affect people in different ways. For instance, yellow encourages people and ideas to come together, blue assists creativity and communication and green is for fresh starts and new ideas. BA have allowed their staff to take advantage of the differently coloured offices to suit their working needs, by letting them choose the zone they wish to work in, at any particular time. Forward looking companies, such as B.A. are beginning to see their office environments as a critical success factor (Gray, 1999).

When companies, such as B.A., Reuters, the Bank of England and Marks and Spencer, (Eurofile, 1997) are using feng shui to help determine the environments they work in, then conceivably it is worth considering for the classroom. Clarendon Fields Primary School in
Dunkinfield strove to create a more nourishing environment for their children by embracing feng shui philosophy. The headteacher explained that:

"The pupils will be better orientated if the school is more clean and efficient. If the school is tatty, we will get tatty work back" (Ashton and District Reporter, 1998 p.10).

Therefore, nine hundred pounds was spent on refurbishment, such as the construction of a wider footpath and the replacement of old, dull carpets and curtains. Ordsall Health Centre near Salford wished to encourage their employees to take a restful break in the common room, instead of staying at their desks, so they gave the room a splash of colour with children's paintings and bright furniture. (Advertiser and Salford City Reporter, 1998) This was cheap, easy, effective and achieved with feng shui advice. They hoped to introduce a water feature later, to enhance the positive and peaceful atmosphere.

Feng shui is an interesting concept and one that has the potential to be explored further in the education world, as is occurring in the business one. The underlying principle of feng shui is to live in harmony with your environment, to make the environment work for you, instead of against you (Walters, 1999). The relevance to schools is apparent, when it is considered how often pupils are forced to work in an environment, which can exacerbate behaviour problems, rather than help them. If feng shui is found to be helpful, perhaps it could be considered more often in the educational world, albeit it in a less costly version than the business one.
B. METHODOLOGY AND DATA PRESENTATION

The writer’s research design is a qualitative approach based in the socio-anthropological paradigm using eclectic data collection to gain a broad and detailed overview. The alternative scientific approach with its quantitative means of research was thought to be too limiting and inflexible for the complexities of the school situation. The study is an empirical inquiry with ethnographic data collection, relying largely on field notes and the interactive research method of interviews. The writer presently resides in Belgium, so there were limitations imposed on the study and an imaginative approach needed for data collection, in order to maintain validity and reliability. The research was essentially centred on the classroom environment with some reference to accommodation in communal areas and residential units. Three schools were the subject of case studies by the writer. In addition, data from OFSTED inspections was obtained on a further twenty schools. The writer considers the research to be both applied and pure, as the findings can be used in everyday practice in EBD schools, as well as adding to theoretical understanding. The various sources of data create greater understanding and increase their reliability, as they are able to be adapted over a broader educational field. The resulting chain of evidence establishes an internal validity.

However, there could be some criticism of approach, which the writer acknowledges and comments upon later in the paper. There is also a dearth of input from the pupil’s perspective, even though there has been research on student perceptions of the learning environment, such as Moos’s Social Climate Scales of 1974 and 1979 (Fraser 1986). Questionnaires and/or personal interviews with pupils could have been informative and enlightening. Nevertheless, the writer believes that the research is validated by triangulation with different data sources substantiating the findings. It is the expectation that a balanced perspective has been achieved.
B.1. **Three case studies with discussions.**

The three schools have given their permission to be named. The first, is an independent 3-18 years, British School in Belgium, where a purpose built mathematics and science block has been constructed. The second, a primary Pupil Referral Unit in Kent, that was moving from its existing accommodation to a refurbished site. The third, a secondary EBD school in Bristol with contrasting school and residential accommodation. All were the subject of either formal or informal interviews with staff members, which were time-consuming but provided in-depth information. Kotler (1967) endorses that personal interviewing is a versatile study method, as additional questions can be asked, based on the interviewer’s observations. These interviews, either paraphrased or verbatim, are in the main body of the text as the writer considers them significant and central to the discussion. The methodology and rational for transcription is explained before each report. Topics raised are elucidated within the text by references to the literary review and related to practice. Case studies do not easily lend themselves to statistical tests, therefore the emphasis is on understanding the data produced.

**B.1 (a) The British School of Brussels**

In 1995, the writer's children joined the British School of Brussels (BSB). As this enabled relatively easy access, the writer decided to review the creation of a new purpose-built building at the school and its effect, if any, on pupil classroom behaviour. The study of this independent mainstream school with good funding has relevance, as it is the writer's belief that environmental effects hold good whatever the nature of the child, as is discussed throughout the paper. It is also interesting to compare this school with the other schools used for data, that are all LEA funded.
The British School of Brussels was founded in 1969 and has a site of about 15 acres surrounded by woodland near the town of Tervuren, some twenty minutes by car from central Brussels. The school is a fee-paying, co-educational, non-selective day school for students from 3 to 18 years with approximately 1,000 on roll, seventy-five percent of whom are British. The new mathematics and science block opened in January 1996. Within this there are state-of-the-art laboratories and prep rooms, a mathematics suite with ‘whole-class’ computer demonstration facilities, a 6th.form library/study area and comfortable staff work areas.

The school decided to invest in a new mathematics and science block to accommodate the teaching and learning demands of the 1990's. The mathematics and science department produced reports in 1990 outlining the existing provision and the educational implications for the future. These reports were the outcome of meetings with staff, who were consulted throughout the planning process, making a successful outcome more likely. Purchon (1991) agrees that a school building has more chance of success if the teachers are involved in the design. The introduction of GCSE and the British National Curriculum to the school were seen to necessitate changes in teaching styles and classroom organisation. There was an emphasis on safety, space and opportunities for individual children to acquire practical skills.

The observations in the following italicised, paraphrased science report illustrate some of the reasons why the accommodation had to be changed to fulfil the above requirements.

One laboratory had benches so deep that year 7 pupils often needed to climb onto a stool to reach the gas taps. The gangways were so narrow that pupils were blocked in by their neighbours. Another laboratory had nowhere to place books to avoid potential damage to
them. In addition, pupils were not able to collect equipment without disturbing others. All laboratories were severely restricted when it came to safe elbowroom and many pupils had to stand with their backs to the teacher during practical activities.

The planning of a purpose built teaching block raised some important issues in classroom design and its effect on teaching and learning behaviours. However most importantly the building had to echo the ethos of the school. For instance, in the new science laboratories, teachers and children work side by side at mobile octopod units with no use of traditional podiums, promoting a feeling of equality that is encouraged throughout the school:

"The science block reflects the school's egalitarian philosophy" (Thomson, 1996, p.33).

**Illustration 1: a new science laboratory at the British School of Brussels**

This design feature did however also create opportunities for less on-task behaviour. There is extensive use of glass with the pedagogical reason for all this transparency being that:

"The open views are designed to encourage hard work. You are not going to sit around day-dreaming when you see other people with their heads down" (Thomson, 1996, p.33).
Du Pont provided the worktops for the laboratory benches, designed and manufactured by the English company Energy Facilities Management Limited, (EFM). EFM had no doubts about the connection between the environment that they were helping to create and its potential impact on learning and behaviour:

"An attractive and stimulating academic environment can only help to increase the student's desire to learn, add to the sense of commitment and team-work, encourage understanding between teacher and students and increase the students' respect for their school and its equipment" (DuPont magazine, 1996 p.18).

The company strongly believes in the philosophy that a good, safe, attractive working environment can transform the attitude of the students towards learning. They base this on detailed research into the needs of teachers and students in the laboratory. The head of science agreed that:

"...stimulating colours, such as green or pink, or even speckled beige and grey, give a classroom a more interesting atmosphere, which I feel encourages learning” (DuPont, 1996, p.19).

This viewpoint is however different from colour therapists views, who have established that classrooms decorated in yellow, red or orange stimulate children's IQ (Fielder, 1999).

**Procedure**

During the autumn term of 1996, the writer contacted the headteacher of the BSB outlining the proposed study and enquiring if the school wished to be involved. The head suggested that the writer meet with the head of mathematics and the head of science, who were contacted in January 1997. The introductory letters briefly outlined the writer’s areas of interest, described how the interview would be conducted, confirmed that the headteacher's permission was given and asked if they would consider being interviewed. The writer explained that the interviews would be structured and taped for later transcription. The questions used during the interviews would be as open-ended as possible to avoid too much direction from the interviewer. Both heads of department agreed with the suggested format.
The head of mathematics not only agreed to the interview but also wrote comments in preparation and sent them to the writer (Appendix 1). After telephoning to arrange a time and date for the meetings, the writer sent an outline of how the interviews were expected to proceed (Appendix 2). The areas of discussion were able to be more rigidly defined, after reading this interviewees preparation notes. Both teachers later confirmed that the reports were an accurate reflection of the interviews.

The interview with the BSB head of mathematics

On the day, the head of mathematics gave a tour of the subject area. The meeting was then conducted in the new office of the head of mathematics, who had written a second, more detailed set of notes in response to the interview framework (Appendix 3). These were consulted by the teacher during the interview and then given to the writer.

In the following transcription, the exact wording of the questions is not given as the writer considered it unnecessary with such lucid answers. In retrospect, their inclusion may have shown that the writer as researcher was not influencing the data. The interviewee's answers are either written verbatim in italic script, or as a summary, to abbreviate the text and vary presentation. The tapes are available for reference but it may have been better for complete accuracy to print the whole interview in the appendix and to quote relevant lines. The transcription is juxtaposed with supporting literary references

The head of mathematics was asked about the effect of the new classrooms on teaching and learning:

"One of the biggest problems (in the old building) was the lack of space. It meant that for instance, with the year 10 students, who by that time are quite large, I could hardly get around the class. Certainly there was no possibility for the students to move around. In the new building, certainly in
the beginning the students commented a lot on the amount of space. They were really very impressed I think. In the new building, I move around the classroom a lot more than I did before, for purely physical ability reasons, which is a terrible thing really, that something so concrete can effect what you are trying to do.”

Bull and Solity (1987), found that students often sat in positions that reflected their willingness or unwillingness to participate in a lesson and that it is important to have access to all pupils for both monitoring of work and behaviour.

“Another thing that we found quite a difference was our equipment, particularly video recorders and especially computers, we can move around even from classroom to classroom very easily indeed.... the design of the electrical layout and the positioning of the network sockets by doorways makes that possible, without having to move children around.”

This concurs with Agar (1998) who states that the type of accommodation can limit the work achievement and student potential.

“It has motivated us to use the computers a lot more.... and that does effect the style of teaching a lot. It gets you away slightly from the chalk and talk.”

Lee (1976) comments on the necessity of matching teaching style with the learning environment and Thomas and Martin (1993) found that a quality environment could be a stimulus for learning.

“The teacher has the ability to demonstrate things in a variety of media.... visually it is much better. The growth in the student's computer literacy and computer skills is enormous. I think it is the first time really that we have had the whole mathematics department happy to use computers in the classroom. There was also a huge improvement in storage, resource facilities.... it has been quite noticeable that teachers are using the resources a lot more, that obviously has benefits for the students. Psychologically...more space, more light, you feel less pressured I think, the students feel less pressured.... the whole learning process is kind of lighter, freer, sort of.”

Purchon (1991) says that people unconsciously react to the climate and atmosphere of a room. The pupils appeared to be looking after their new building; for instance, there was no graffiti. The head of mathematics is a firm believer that, "if there is graffiti and it is allowed to stay it will breed more graffiti.” OFSTED (1999c) agrees that the most effective schools have a
policy of immediately repairing damage. The head of mathematics was then asked about the decor, lighting and sound proofing:

“.... the choosing of the pastel was as a sort of calming effect and sort of serious get down to work equated with an ability to concentrate, which is very important in mathematics.... The lighting was very important, the rooms are very light... for instance the walls where the white boards and projector screens are, basically you have your back to the sun, so when the sun comes through it reflects off their shiny surfaces and this dazzles the students... but the school fitted helio blinds which does allow quite a lot of light in but not direct light and it is really very effective... the orientation of the room was very much down to lighting. The sound proofing was a big priority.... a peaceful atmosphere in which to concentrate.”

The classroom windows no longer had a view out onto a playground, thus easing distractions and helping to improve concentration. The possibility of visual unwanted distractions is one of the needs that have to be considered when planning a classroom (Bull and Solity, 1987). The 6th form students had also gained a quiet area with study room and were consequently more motivated and studying for far longer. It was not only the students who had benefited from a purpose built environment. The staff had a departmental office where teachers could share ideas and even prepare lessons together, easing the isolation of teaching and appreciating and learning from each other’s experience. This collaboration between teachers could continue into the classroom, as there was now enough physical space to allow a support teacher to be present when needed. Pupils with special needs no longer had the possibility of being, as the head of mathematics said, "stuck in a corner, where they could be left to cope on their own.” The extra space had created an educational bonus for these children.

The head of mathematics spoke about how the school is sharing the knowledge that has been gained in designing and working in the new building. They actively invite schools to visit, exchange ideas, or act as consultants.
The interview with the BSB head of science

The writer wrote field notes to supplement the tape recording of the interview with the head of science. These were useful, as the tape was found indistinct in some places. The interview was paraphrased because of this lack of clarity and the writer’s intent to report only the content that related to the research question, as indicated in Appendix 2. This was a judgement decision but it is not expected that this personal choice has contaminated the evidence. The interpretation is available for reference via the tape recordings. The interview report is accompanied by referrals to the appropriate literature.

The main environmental change that the head of science desired in the new building was an increase in space, with safety being paramount in design choice. It was also requested that the chemistry labs were orientated to avoid as much sunlight as possible. This was so that, for instance, the flame on the Bunsen burners could be clearly seen. Even with careful discussions with the architect, there was some misunderstanding about the interpretation of requirements. The windows, for example, ought to be one third opening but some do not open at all. This means that although the ventilation is adequate, it is not as good as was originally intended. Acoustics was another important area for consideration, but even though the tiles on the walls and ceiling absorb noise, the windows are double-glazed principally for heat retention, not sound proofing. This means that extraneous noise from the playground and field can also be a problem.

One of the big advantages in the new building is the extra space that means that teachers and pupils can move to all parts of the laboratories at any time. The joined octapod shaped workbenches also encourage group work, whereas previously this was limited. However, now there are possibilities for new group dynamics, as for instance, on-task behaviour has to be
checked more rigidly, as pupils have more opportunity to stray from the set task, because the octapod arrangement create more opportunities for talking. Glynn (1982) points out that changes in behaviour can be attributed to physical stimulus variables. These changes in pupil behaviour have resulted in teachers, especially those who have been teaching for many years, having to rethink rules and routines, which they had previously applied to a virtually static class. Thomas and Martin (1993), acknowledge that sometimes refurbishment can be the catalyst in motivating and rejuvenating staff who were set in their ways or disenchanted.

The one or two incidents of graffiti in the science block were eradicated immediately and the pupils are well aware of the need to care for their new, expensive environment. The building is more pleasant to work in, as there is more space per pupil and organised, easily available storage areas. Stone (1992) notes that organisation and accessibility of equipment is recognised as being very important in controlling behaviour. However, there was a design mistake with the height of the shelves under the desks, which did not allow enough knee space. The shelves were consequently raised to overcome this problem. The writer has had personal experience of this particular problem, as expressed in the literary review under the “spatial category.” It is comforting to know that other professionals can make similar mistakes. The non-slip floors are appreciated by all. Students have also commented on the larger width doors. These allow for easier access, thus omitting a past area of conflict, as they reduce the possibility of pupils jostling and thus beginning and ending the lesson in an unruly manner (DfE, 1996). Gray and Richer (1988) endorse that movement can incite disruption.
Discussion of BSB case study.

Both heads of department were friendly, pleasant and eager to assist. They recognised that in the planning of the new building, adequate space was needed to create an environment that facilitated learning and was equipped for the teaching and learning demands of the future. The science department had a key interest in safety, whereas the mathematics department required an atmosphere of calm. Decisions on such items as colour, fixtures, and fittings were all made to create a positive learning environment, which supported the school ethos. Nevertheless, even with rigorous planning, there were some architectural flaws made in ventilation and noise control and the choice of furniture.

The overall school accommodation is being improved in stages, with each phase building upon the experiences of the previous stage. There were some changes in pupil behaviour in the new building. These included the pupils having a greater pride in their surroundings and the more modern facilities enabling improved learning. It is interesting to note that the teachers themselves, were also the subjects of behavioural changes. There was now a need to re-evaluate teaching methods, because of the extra space, the arrangement of the fixtures and fittings and the easier accessibility of resources. Although behavioural changes were noticed, the head of science communicated the firm belief of the school that the relationship between teacher and pupil has a greater effect on learning and behaviour than the environment.
B.1 (b) The Beeches Pupil Referral Centre

The meeting with the Beeches Primary head of centre took place at an Educational Convention in the United Kingdom in 1996. The unit was about to be re-housed and the headteacher described the background to the move, which the writer summarises below. This is interspersed with pertinent extracts from the literature and photographs provided by the headteacher. Although this was an unplanned meeting, the writer took field notes, which were later verified by the head for accuracy. The Beeches is a Primary Pupil Referral Unit (PRU) in Bexley, Kent, taking boys and girls from 4 and a half to 11 years old. It was set up in September 1994 in a former secondary school building with access via a dangerous elevated walkway above a playground:

Illustration 2: entrance to former location of the Beeches Pupil Referral Unit

In 1994, the capitation to fully equip and alter the site was seven thousand pounds. The building was inappropriate for the children who were to be housed there and the money available inadequate to successfully adapt the environment:
“Governments do not always impose a limit on the cost of commercial or bank buildings, but they are much more authoritarian about the cost of schools, jails and hospitals” (Agron, 1971, p.112).

In 1996 there were twelve full-time places with classes using two rooms, whose Edwardian design was producing some problems. High narrow windows did not let in enough light and were awkward to open for ventilation. The large heavy doors provided the children with a means for hurting others by crushing fingers or they could be leant against, so that they could not be opened. There was no water supply to the classrooms and a scarcity of power points, which caused problems and limitations for many lessons. The high ceilings did not create a pleasant ambience and the floor to ceiling shelving was sometimes used for unsolicited climbing lessons. The uneven wood block flooring was an impediment for furniture and a safety concern. The walls were curved where they met the floor, which limited the placement of furniture and therefore full use of space.

One room in the building had three uses; a staff room, office and stock room. Throughout the accommodation the brick or tiled surfaces with hard flooring maximised sound and did not create a homely environment. OFSTED (1996c), found this inadequacy of accommodation to be typical of PRU’s:

“Accommodation in ten out of twelve units were unsatisfactory. Classrooms were often too small, and there was insufficient social accommodation” (OFSTED, 1996c, p.20).

This situation exists, even though pupils with EBD have the same entitlement as any other child to be educated in appropriate accommodation (OFSTED, 1999c). However, the head said that in the two years they had been there and in spite of the accommodation disadvantages, all but one child had returned to mainstream or special education provision, which supports the belief that:
“Good teaching can take place in old cramped classrooms and bad teaching in the newest facility “ (Cole, 1986, p.69).

At the time of the meeting in July 1996, the whole site was being converted to a MLD all age school. The PRU was being re-housed in a vacated infant school with four rooms, no office and no staff room. Agron (1971), comments that it is unfortunate that this type of situation is often the case, as new schools cannot be built today and the old ones disposed of tomorrow. Although space was limited, the staff had definite requirements for fixtures and fittings in the new building. The head considers that, “the environment is crucial, to everything the unit is trying to achieve.”

Staff proposals included:

- Security to monitor entrances and exits.
- Cloakroom areas, so that coats and bags could not be used as a distraction or a safety problem.
- Plenty of sockets, so that there would be no trailing flexes or arguments about use.
- White boards, as they are more versatile than blackboards, but placed so that light did not directly shine on them.
- Trellis work to be used as room dividers, as the children liked the cosier atmosphere they created, but also needed to see and be seen.

The head of centre holds the belief that the furnishings in a school ought to be chosen and looked after with the same care as if they were in a personal home. This concurs with the Peper Harow treatment approach, where an environment is created that strives to contain and reassure (Rose, 1990). The head’s interest in the impact of the environment on children, was a
current issue for the unit, as the re-housing, necessitated the staff making decisions concerning classroom environmental requirements within a limited existing space and budget.

**Procedure**

The writer contacted the head of centre in October 1998, to see how the move had progressed. The reply was received in January 1999, just after an OFSTED inspection. The head wrote that the new site is next door to countryside with lots of space for running and roaming.

**Illustration 3: environmental location of the re-housed Beeches PRU**

The entrance to the re-housed centre is through a gate surrounded by foliage, in contrast to the previous entrance. The classrooms are light and airy, whilst managing to be warm and welcoming. The requested cloakroom areas, electrical points, white boards and trellis dividers have been provided. The head and secretaries offices have been created from a cloakroom area. They are cosy but on the small side. One classroom doubles as a staff room / meeting room and there is also a purpose built time-out room, which the head said, the children call the "chill-out room!" The accommodation was much better than their previous site, but there had been some negative behavioural repercussions following the move. The head considered that this was partially because the routines that had been established in the old building had to be unlearned, as they did not transmute to the new
building. The staff had discovered that rules and routines were largely governed by the nature of the building, so that tried and tested strategies did not work in the different site.

Illustration 4: entrance to the re-housed Beeches Pupil Referral Unit

The process of re-thinking procedures had been a valuable one for staff and was still being built upon; (this is similar to The British School of Brussels experiences). It had actually taken two years for everyone to feel settled. The head commented that the staff did not appreciate how much life is a series of habits, which are casually taken for granted. In the old premises the school was coping and emotionally feeling safe, so it was hard to move and make adjustments, even to a more suitable site. They were all very contained and emotionally held in their original premises, because the head believed, “that what they were - as an establishment - was an integral part of where they were.” This feeling is reflected in this statement accredited to Winston Churchill:

"We shape our buildings and they shape us" (Horowitz, Duff and Stratton, 1970, p.18).

The head concluded that the unit now feels settled and they find it a, "comfortable and comforting feeling." This was supported by the 1998 OFSTED inspection that found that the unit provided a calm and caring environment that created positive pupil response (Appendix 4).
Illustration 5: a classroom at the re-housed Beeches Pupil Referral Unit

However, the inspection team thought that the exterior of the school was far less welcoming than the interior. That may have been because they visited in winter, when there was no decorative foliage surrounding the entrance area. Several health and safety problems were highlighted, which the school had already addressed to the LEA but had experienced a lack of response. The head said that this was typical of communication with the authority and an on-going difficulty for the unit.

Discussion of The Beeches case study

The Beeches is an example of a school being re-housed in an already existing building. The staff had opportunities to use their past professional experiences in attempting to create a facilitating environment. When suggesting fixtures and fittings for the adapted building, the staff were well aware of the importance of their choice, although restrained by budget implications. It was only after the move, that the staff realised the affect of the new environment on themselves. They had to adapt their own teaching management styles, to suit the new accommodation. Therefore, although the environment was a much better base for its designated pupils, it was 2 years before everyone felt comfortable in their new surroundings. The unit nurtures close working relationships between teacher and pupil and this ethos did not change. In fact, although they acknowledge that appropriate accommodation helps achieve optimum performance, they put this in second place to the teacher/pupil relationship.
B.1 (c) Fulford School

Fulford School in Bristol is a co-educational day and residential secondary school (11-16) for approximately 60 pupils with emotional and behavioural difficulties. The photographs illustrating the text were taken two years after the initial visit, but there were no visible exterior differences. The school is situated in the centre of a housing estate in south Bristol. The immediate area is nationally recognised as one of social deprivation.

Illustration 6: environmental location of Fulford School

From the 1960’s, the local infant school occupied the site of Fulford’s present teaching building. In 1984 the infant and junior schools amalgamated and were rehoused in the junior section. The current EBD school was then set up in the vacated infant section with a newly constructed purpose built hostel. In 1995, a new classroom block was erected comprising of portakabins built to ‘terrorist proofed’ standard.
As part of the background to Fulford school, the writer considers it relevant to include a summary of the DES survey of 1983-1988, which included Fulford School (DES, 1989a). This studied the provision for pupils with emotional and behavioural difficulties in maintained special schools and units. Fulford’s accommodation was typical of the results that were found. In over half the schools, the accommodation was considered inadequate. In particular, there was a lack of specialist areas, especially in former primary schools, with insufficient storage space and frequent use of demountable buildings. Several schools suffered from regular break-ins and acts of vandalism with the pupils not always being the perpetrators. The siting of some schools and inadequate security made them vulnerable to this kind of abuse. Those buildings in a state of disrepair were often not treated with care and respect. The inspectors report on the schools, used such descriptions as; ‘shabby,’ ‘uninviting,’ ‘in serious disrepair,’ ‘drab and dingy’ and ‘with an air of sad neglect.’ Provision thus existed with environments that seemed likely to have a depressing effect on the staff and pupils who lived and worked there. However, some standards of accommodation were good and there were a few examples of parents and pupils helping with maintenance.

Procedure

In July 1997, the writer contacted five EBD schools in the Bristol area, requesting an interview to discuss the possible effects of the classroom environment on behaviour. It was explained that the writer had working knowledge of EBD schools so, hopefully, staff would feel comfortable and not threatened by the visit. The writer has experienced that staff at EBD schools are often wary of visits from ‘outsiders’ who can be critical of staff and pupils, without having any depth of understanding. The letter clarified what the writer constituted as ‘environment’. In hindsight, the writer should also have clarified the meaning of ‘behaviour,’ as with the BSB interviews. This oversight could have been avoided by having the contents of
the letter reviewed by a third party. Fortunately, this omission does not appear to have created any misunderstandings.

Fulford School, Bristol was the only establishment to reply positively to the interview request. The low response rate could have been because it was approaching the end of term. A casual meeting was planned, with the writer having questions for prompting if they were needed. These questions were not required, as the acting head talked fluently about the relationship between environment and behaviour at Fulford. At the time of the visit, most of the school was participating in off-site end of term activities, so the classrooms and living accommodation were devoid of pupils. This was unexpected but meant that the interview with the acting head progressed uninterrupted. However, the writer was unable to see the pupils in situ or have the opportunity of informally chatting with them. This was an informative visit, but in retrospect, the writer could have used other means of recording, rather than purely relying on field notes. Perhaps a video camera for visual and auditory recording or a still camera and tape recorder. This would have been possible, without causing disruption, as most of the school was absent. The notes that were taken were sparse and did not reflect the amount of information given, as the writer was absorbed with the content of the conversation. There is thus the risk that the recording of the interview is not complete or objective. However, the transcribed field notes were sent to the interviewee to check accuracy and this was confirmed. The report is interspersed with appropriate extracts from current literature.
Interview with the acting headteacher of Fulford School.

The interview was conducted whilst walking around the school site with the acting headteacher talking eloquently about the school. The teacher informed the writer that the disparity between the needs of the secondary age pupils at the school and the environment in which they find themselves, has created numerous problems. For instance, there are no outdoor sports facilities and the indoor gym is too small for the age and temperament of student. The heating pipes are 7-8 ft. from the ground, out of reach for younger children, but for older ones, just the right height from which to swing. This supports Redl and Wineman’s (1957) comment that, youngsters size up a room to see if the equipment has potential other than its primary use, with heating pipes being an uncontrollable temptation.

The portakabin used for key stage three is not aesthetically pleasing with its full steel shuttering. However, the school has tried to make the inside inviting and has involved the children in choosing colours and helping staff with the actual decoration. This is a good example of role-modelling, as changing or improving an environment and being seen to do that can show the child that the adult world respects and cares for them (Rose, 1990). Taking care of the buildings is one of the actions that conveys the message that the school is valued and that the staff appreciate the needs of the children (Rutter, Maughan, Mortimore, Oaston and Smith, 1979). When the computers are not in use, they have to be kept in unattractive cages, as an insurance requirement, because of the high level of burglaries by local gangs. The acting head questioned the suitability of the school’s location. The siting of EBD schools in urban areas is a concern echoed by the DES (1989a). Staff cars and mini-buses are also enclosed in cages to protect against vandalism by local youths.
Illustration 7: exterior of Fulford School

Nearly all of the classrooms and corridors show evidence of hard use and dilapidation. In contrast, the cookery room is well kept with a welcoming atmosphere. This room has air-conditioning and is thus comfortable to work in, especially as the sun is a big problem in the rest of the school. The writer was told that this is a room that the children often choose as a reward. Whether this was for environmental or other reasons, such as teacher influence, had not been established, but it was thought that it was a mix of both that had made the room popular. The teacher had succeeded in creating a room that echoed the Wills criteria of safe, secure, permanent and mine (McNamara and Moreton, 1995).

The inappropriate teaching environment is in complete contrast to the purpose built hostel, which is used as a flexible resource for up to 4 nights a week. This is inhabited by pupils for planned and respite accommodation. The standard of behaviour here is considerably better than in the teaching block, even taking into consideration that they are not under the same pressure as in the classrooms. The pupils treat the accommodation with care and respect. The
acting head believed that part of the reason for this difference in behaviour was that the residential building was sympathetic to the needs of both staff and children. Six months previously, new chairs had been purchased and at the time of the visit, they were still in pristine condition. However, the old damaged chairs, which had been moved to the social/games area, had suffered further misuse. This pattern of behaviour is one that many teachers will have experienced. One piece of damage often invites another (Bettelheim, 1950).

The acting head spoke of the OFSTED inspection of 1996 (OFSTED 1996a), which stated that the main teaching building, even after recently completed improvements, was unsuitable for its current purpose. This 1996 report confirmed the writer’s impression of a pleasant, well maintained hostel respected by the residents, contrasting with an inadequate teaching environment, that contributed to poor standards and indifferent work ethic.

Addendum to Fulford School

In January of 1999, the school was the subject of another OFSTED inspection (OFSTED, 1999b). Fulford School had a new head teacher, who was settling into the role. The school was rated as being poor value for money, at the time of the inspection. Although there was now money available for accommodation improvements, the school still presented a dilapidated appearance with unsatisfactory accommodation. The classrooms were not stimulating places in which to work and there was inadequate provision, for subjects such as science and PE. However, the inspectors’ key points for improvement were unlike the ones given in 1996 and were not concerned with the inadequate accommodation. Instead, the primary concern was the lack of involvement of the governing body and parents. Without effective leadership, the school had developed negative attitudes with no functioning whole-school approach to the students. This resulted in the overall behaviour being unsatisfactory and often poor. However, where good teaching occurred, it produced better behaviour.
Discussion of Fulford School case study

The DES survey (DES, 1989a), and the school’s OFSTED 1996 inspection, (OFSTED, 1996a), both linked Fulford’s inadequate teaching accommodation with poor results and behaviour, which was the writer’s impression in 1997. The negative messages carried by the educational environment in presentation and maintenance were very powerful to both staff and pupils. The agreeable contrast of the residential unit that was looked after and comfortable showed:

“… how sensitive even otherwise defensive children are to the ‘atmosphere’ which…. the architectural design, the space distribution…. the type of furnishings…. suggests” (Redl and Wineman, 1957, p.284).

At the time of the 1999 OFSTED inspection (OFSTED, 1999b), the school accommodation was still giving cause for concern. However, the identified key issues were not directly connected with the environment but with the negative atmosphere, due to ineffective leadership, which led to staff having little pride or care in their school:

“Children will be less inclined to perform anti-social behaviours in settings where social controls such as watchfulness and care are exercised over them“ (Charlton, Gunter and Coles, 1998, p.11).

The leadership of a school has a direct impact upon its educational effectiveness and the standard of behaviour of the pupils (Gersch, 1996). In Fulford’s case, an inconsistent management approach helped fuel the pessimistic atmosphere. However, where pupil behaviour was good it was directly linked to the quality of teaching and management of the classroom setting:

“The most powerful influence on pupils’ learning was found to be the classroom management skills of the teachers” (Wragg, 1998, p.29).

Thus, it appears that although much of Fulford’s accommodation constrained the pupil’s education, the effect of the environment was secondary to teacher influence and school ethos.
B.2. OFSTED inspection reports on surveyed EBD schools.

The Internet is a valuable tool for investigation and acquisition of current knowledge, particularly when access to other English language resources is limited. Consequently, the writer decided to use the Internet to view OFSTED inspection reports on EBD schools.

Procedure

The special schools Internet site is divided into Local Education Authorities (LEA’s). Each LEA names the special schools that have received an OFSTED inspection. These schools are listed alphabetically with no classification of specific type. The writer chose to look at data from LEA’s that were spread throughout England, in an attempt to minimise any possible geographical anomalies (Appendix 5). A school from an authority was then chosen that was personally known to the writer as catering for pupils with EBD. If such a school was not known in that particular authority, the reports were searched until one was found. This was even more time consuming than it ought to have been, as the writer often became absorbed in reading reports from non-EBD schools.

Eventually, twenty schools along with twenty-three reports were located in this manner. There are twenty-three reports because, Waterside School in Portsmouth (OFSTED, 1996e) had a separate report for its severe unit, and both Deerlands School, Sheffield, (OFSTED, 1995a, and 1999a) and Starhurst School, Surrey (OFSTED, 1996d and 1999e), had two reports. Deerlands School also had an interim HMI inspection, which was not included as part of the findings, but is shown within the data presentation of all the reports in Appendix 6. The schools are named, as the information is freely available to the public. The vocabulary in the reports differed, so the writer had to make judgement choices on combining what appeared to be similar findings. Therefore, ‘good value for money’ includes ‘sound value for money.’
‘Unsatisfactory value for money’ includes ‘as yet does not offer satisfactory value for money.’ Two reports had ‘not identified’ findings and the writer decided to treat this as a negative verdict, along with ‘unsatisfactory’ and ‘special measures.’ This is the writer’s opinion and could be contested.

The reports were scanned to find references to accommodation, the environment and behaviour. Pupil behaviour in relation to the environment was commented upon as looking after the accommodation and appreciating the environment. An example of such a statement being:

“ The pupils show great respect for their room and facilities.....” (OFSTED, 1996b).

The antithesis was only indirectly intimated by the inspectors, with comments on signs of damage or neglect indicating low expectations. As there were no direct statements, this data was only recorded in the tables in Appendix 6. In addition, although residential accommodation is not the principal axis of the research, these units are so closely intertwined with the main school, that pertinent findings are included from their reports.

The inspectors also remark on health and safety matters, but the writer considered that their inclusion in the data was not critical to an evaluation of behaviour as related to the environment. This decision was taken, whilst still recognising the fact, that schools that deal promptly with any health and safety issues, are showing concern for the quality of their pupil's environment and in so doing give messages of value about the pupils themselves (Purchon, 1991). However, this is not always as straightforward as it appears, as good intentions can be frustrated by lack of funding, rather than lack of care, as in the case of The Beeches PRU. Therefore, the writer excluded health and safety matters.
Consequently, there are three graphs. The first shows the inspectors final ‘value for money’ finding (figure 1). The second, the key issues, (identified areas of concern), that relate to accommodation (figure 2). The third, pupil pride in the environment (figure 3). Figure 1 is juxtaposed to both figures 2 and 3 as a comparison.

The writer appreciates that decisions appertaining to the research design are subjective and because of that bias and as the research is only a small study, recommends that the findings be treated with caution. However, the conclusions do fit with the writer’s professional experience and some of the literature.

**B.2 (a) Results and Analysis**

The results are displayed in histogram format and referenced by the name of the school and/or the year of inspection.

**Figure 1:**
‘Value for money’ findings from OFSTED reports on surveyed EBD schools

<table>
<thead>
<tr>
<th>OFSTED “value for money”</th>
<th>number of reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>very good value</td>
<td>2</td>
</tr>
<tr>
<td>good value</td>
<td>5</td>
</tr>
<tr>
<td>satisfactory value</td>
<td>8</td>
</tr>
<tr>
<td>unsatisfactory value</td>
<td>2</td>
</tr>
<tr>
<td>special measures</td>
<td>4</td>
</tr>
<tr>
<td>not identified</td>
<td>2</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

![Histogram of OFSTED value for money findings](image)
The ‘value for money’ findings almost show a normal distribution curve, except for the anomaly of the higher incidence of ‘special measures’ than ‘unsatisfactory’ findings. This is probably due to the limited sample size.

**Figure 2:**
*Key issues related to accommodation from OFSTED reports on surveyed EBD schools*

<table>
<thead>
<tr>
<th>OFSTED “value for money”</th>
<th>number of reports</th>
<th>OFSTED comments on accommodation key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>very good value</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>good value</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>satisfactory value</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>unsatisfactory value</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>special measures</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>not identified</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>23</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

Approximately 26% of the reports had ‘key issues’ relating to accommodation, such as:

“To improve systematically the accommodation, so that it fully supports the education and care curriculum” (OFSTED, 1994).

Of the fifteen reports (65%) signifying ‘satisfactory’ or above ‘value for money’ findings, there were only two (13%) with accommodation key issues. The remaining eight reports (35%) with ‘unsatisfactory’ or below findings, had four accommodation key issues (50%). This suggests a link between poor accommodation and unsatisfactory ‘value for money’ findings.
Figure 3: ‘Pupil pride in the environment’ from OFSTED reports on surveyed EBD schools

Pupils having pride in their environment, was mentioned in eleven reports (almost 49%). Six of these reports (54%), had ‘good’ or ‘very good,’ ‘value for money’ findings. The four ‘special measures’ findings (36%) did not have any mention of pupil pride in their reports. This suggests a link between this aspect of pupil behaviour and the success of the school, as measured by the findings of the inspectors.

B.2 (b) Discussion of survey of OFTSED inspection reports on EBD schools

The reports indicate that adequate financial assistance is needed to create and support an environment with accommodation suitable for children with EBD. However, the very nature of this type of child, combined with frequently, expensive to maintain buildings and/or inappropriate accommodation can create a large financial burden. Unfortunately, the writer has found from personal experience that EBD schools often have great difficulty receiving sufficient funding, even though they are allocated more per student than mainstream schools. They are frequently the victims of bad press with the public not having the opportunity to applaud such successes as:
“The school is working hard to establish an ethos and environment that supports pupils learning and makes them feel good about themselves” (OFSTED, 1996e).

Increasing expenditure on the fabric of such schools is not a popular Government initiative. Nevertheless, the surveyed OFSTED reports show that refurbishment and maintenance programmes are essential in making and maintaining success.

The writer believes that suitable accommodation is an important building block towards effective education:

“The school’s accommodation is adequate. Recent spending decisions have been effective in improving the quality of the both environment and the curriculum…. and these have had a positive effect on pupils attainment and progress” (OFSTED, 1998c).

In contrast, inspectors found that Childscourt School, Somerset (OFSTED, 1994) had accommodation that did not support the curriculum.

Few teachers are privileged enough to work with architects in planning their classrooms, even when the behavioural and environmental implications are considerable (Agron, 1971). However, even the upgrading of accommodation does not guarantee that the school provides ‘value for money’, as shown by Deerlands School, Sheffield (OFSTED, 1999a), that was still found as needing ‘special measures’ even after refurbishment.

Unsuitable existing accommodation can be a particular problem for EBD schools, as many are housed in rambling, old manor houses, even listed buildings, as with Windlestone Hall School, Durham (OFSTED, 1993e). Other schools are seriously hampered by restrictions imposed by the building, such as the inner city, 60’s built Meade Hill Centre, Manchester (OFSTED, 1998b). The Elton report (DES, 1989b) drew attention to the connection between
the appearance of school premises and the behaviour of pupils, as the OFSTED inspectors saw at New Summerseat House School, Bury:

“The practice of boarding up broken classroom windows adds to the impression of low standards and low expectations” (OFSTED, 1995c).

The Elton Report recommended that adequate funds be made available for building maintenance, whilst urging all schools to develop policies to deal with litter, graffiti and other damage. It also suggested that schools should follow the example of the best primary schools in proficiently displaying pupil’s work. Cloughwood School, Cheshire realises the importance of good display:

“..... the quality of art work on display.... significantly supports their (the pupils) self-esteem....” (OFSTED, 1998a).

The writer’s limited research of OFSTED inspections of EBD schools, has found that sufficient finances are needed to create a good quality environment that is necessary for improved self-esteem and adequate attainment.
The conclusions to any research must be based on the actual evidence, which has to be cautiously interpreted. The researcher’s own values and beliefs, whilst having importance, must not contaminate the evidence or distort the result. Although the writer believes that the results of this research are valid for all types of schools, the primary focus is on the EBD pupil. In evaluating the effect of the classroom environment on behaviour, the writer considers that two key findings have emerged, succinctly expressed in the quotations below:

“What kind of deviant do you want? We’ll build you a school to create it!” (Daniels, 1996) and “What occurs within the walls of an educational environment reflects, not the physical environment but the characteristics of those within it” (Gill, 1977, p.14).

The writer’s research has shown evidence to support both these seemingly conflicting statements. The reality lies somewhere in-between.

Daniels (1996) believes that the built environment of a school has an enormous influence on pupil behaviour. The BSB and The Beeches PRU found that the accommodation also affected teacher behaviour. Purchon (1991) looked upon this influence as a “hidden curriculum: “

“Research by environmental psychologists shows that a building’s functional and aesthetic design can influence behaviour and attitudes in subtle ways. People unconsciously react to its climate and atmosphere and not surprisingly, an enriched environment improves behaviour. “ (Purchon, 1991, p.22)

The Elton Report (DES, 1989b) drew attention to evidence linking the appearance of a school to the behaviour of its pupils and stressed the need for appropriate building design. The architecture, the décor, even the state of the fixtures and fittings can affect morale and behaviour in both staff and pupils (Cole, Visser and Upton, 1998). Fulford School experienced pupil behaviour problems, that were partially attributed to the mismatch between
the accommodation and the age and type of pupils. OFSTED inspectors in the writer’s researched reports comment on attractive, well-maintained accommodation enhancing learning and raising expectations (Appendix 6). DES (1989a) agreed that:

"Where facilities were good and the quality of the environment high, pupils behaviour and attitudes to work were likely to be more positive” (DES, 1989a, p.13).

The writer considers that school accommodation could be compared to an incubator nurturing the young. Successful growth will be easier achieved in an environment that is comfortable, safe and sympathetic to their needs.

However, given that many of our schools have inadequate accommodation but are still successful, brings us to the second key finding of the research. That is that the people in the building have a greater influence than the building itself Gill (1977). The BSB and The Beeches PRU both believed absolutely in this ethos, whilst acknowledging the contributory effect of the environment. The effect of the classroom environment on pupil behaviour is largely dependent on the individual teacher’s management skills OFSTED (1999c). If the classroom is organised well, it will work for the teacher, encouraging learning and discouraging inappropriate behaviours (Bull and Solity, 1987).

The teacher has to be aware of the effect on behaviour of the physical elements in the room and adapt, change and alter as necessary and if possible:

“ How staff, within the constraints of site, time and money, mould the physical environment can assist or obstruct pupils emotional well-being and therefore their availability to pursue instrumental goals” (Cole, Visser and Upton, 1998, p.132).

Teachers displaying this care of the environment are positive role models, transmitting powerful messages to the pupils, that they too are cared for and valued (Rose, 1990).
Nevertheless, as was seen with Fulford School, the success of teachers in the classroom, is also determined by having the support of an overall school ethos, directed by effective leadership in control of adequate finances.

The writer believes that the research has shown that the classroom environment has certain, powerful effects on behaviour. Whilst evaluating and acknowledging the extent of this effect, it has become clear that, effective teachers can counter deficiencies of accommodation. Continuing the analogy, if the classroom is the incubator then the teacher is responsible for establishing and maintaining an empathic environment, enabling healthy growth. The school leadership is in overall charge providing support and guidance, and the LEA finances provide the unit and thereafter the means to continue functioning in a positive manner.
D. RECOMMENDATIONS

The writer has some suggestions based on this research, for possible future implementation by schools, LEA’s and teacher training establishments.

D.1. Teacher training

The prevention of inappropriate action in the classroom is better than intervention (Stone, 1992). However, some teachers prepare for lessons, without considering the effect of the actual classroom environment on the students’ behaviour. They have difficulty in recognising the two are interrelated. It is therefore worrying that educational texts exist on the subjects of, ‘understanding classroom behaviour’ and ‘effective classroom management,’ that have little or no evaluation of the physical environment, as being possibly connected to presenting behaviours. These include Cheesman and Watts (1985), Smith and Laslett (1993), Fontana (1994), Balson (1996) and Blun (1998). It is with concern that the writer notes that some of the books mentioned are standard training texts.

If the connection between environment and behaviour is not made during training, it will eventually become evident in practice, depending on the temperament of the students. The classroom that a teacher inherits is often not a facilitating one (Margerison, 1996) and so guidance will be required from more experienced staff to adapt and improve the accommodation (OFSTED, 1999c). However, Jordan and Powell (1995) advocate that there has to be a certain initial level of understanding of the stages of development, to benefit from this advice. The writer endorses their recommendation that all teacher training ought to include knowledge of normal child development, so that the understanding of unusual patterns of behaviour, can come from an understanding of the norm. The learned theory is then available for putting into practice, without having to rely purely on experience. Responding to
each child’s stage of development is just as important, as skill in the subject area to be taught, especially when working with children that present challenging behaviours. Some NQT’s have raised concerns that their training has left them unprepared to deal with specific special needs (Garner, 1996), especially those of underachievement and emotional and behavioural problems (OFSTED, 1993c). Teacher training establishments ought to address these concerns.

D.2. LEA co-operation and funding

Schools are increasingly welcoming ‘parents as partners,’ and in this current climate of co-operation, it is time that LEA’s and schools also had closer working relationships. OFSTED (1999c) recommends that LEA’s have to learn to respect the views and proposals of EBD schools, valuing and seriously considering their recommendations. For instance, a school policy of immediate response to graffiti and damage has to have the money for repair and replacement. The writer has found that by the very nature of the pupils, this financial commitment may be excessive when first implemented. But when the policy becomes part of the school ethos, such out-goings will fall, as the pupils respond to the value that is being put on their surroundings (and by association on themselves) and start to look after the school. Other requests for funding to improve the environment, may be as little as the provision of a fan and window blinds to combat the sun or as much as finding ways to increase space allocation per pupil.

The school and its LEA ought to work as a team with mutual regard for each other’s expertise. It should also be noted that effective schools should have the finances to build upon good practice as well as failing ones to receive aid.
EBD schools already receive a more generous financial allowance than mainstream, but this rarely covers their special circumstances and does not allow for a flexible response to immediate needs, or even to long term maintenance costs.

In 1993, the Department of Education commissioned a project reporting on good practice in education resource management (Thomas and Martin, 1993). They looked at 18 secondary schools that were under local management (LMS) or grant maintained (GMS). All the schools had taken the opportunity of managing their own budget to adapt and improve the fabric of their buildings:

“A lot of money has gone into the school environment.... The improved working environment has made a difference to the ethos of the school and the attitude of pupils” (Thomas and Martin, 1993, p.36).

In September of 1999, the Government abolished GM schools, only to discover that over the previous four years, three out of the top five performing schools for GCSE results, were found to be grant maintained (Clare, 1999). The results of this report suggests a link between finance and performance, with schools prospering when freed from local authority control.

At a time when schools are working hard to raise standards often with insufficient funding from LEA’s, it is incomprehensible that twenty-three out of fifty-nine OFSTED inspected LEA’s, have been identified as wasting money (The Weekly Telegraph, 2000). The writer believes that funding ought to be compatible to each school and that LEA’s have to aim to for quicker response to school’s requirements. This is in line with the recommendations of the Secondary Heads Association (BBC Online, 2000), who want to see an allocation of funding, related to the needs of their pupils. Even the Chief Inspector for Schools admits that a fairer
method of getting government money through to schools needs to be found (BBC Online, 2000).

D.3. EBD schools’ status

EBD schools could enhance their outward perception by improving their image. The writer has found that the general public does not believe that it is possible to achieve social, personal and academic goals with EBD children. This is understandable when some mainstream colleagues and even the parents of the children themselves, largely consider that the schools are ‘containing’ such children, without a hope of educating them or achieving long term change. Such views are at odds with teachers requesting funds to create homely environments, with accommodation that nurtures and enables full curriculum access. The tabloid press nurtures the negative viewpoint by concentrating on alarmist, sensationalist news.

Self-promotion has to start from the people ‘on the ground’ with heads and their teachers recording and promoting good practice and achievements. What works with EBD children is often evidence based, in that it develops from practice and experience (Cooper, 1999). Acquired skills are rarely recorded by practitioners who often lack the time or even the inclination to document successful practice. The skills and experience of the good teacher of EBD children are transferable and useful in mainstream. EBD schools have to be more approachable and confident in exalting themselves and losing some of the fear and mystique that surrounds them. Successful teachers of ‘difficult’ children should recognise their excellence in this field and herald their achievements, and subsequently those of their pupils, thus making progress towards creating a better image for EBD schools. Then, they may be able to also have an influence on the training of teachers (as recommended by the DfE, 1993), help their mainstream colleagues and be sought as consultants in the planning and improving of school accommodation.
To those who still doubt the wisdom or necessity of providing EBD children with the comforts of adequate educational provision, the writer submits the following anecdote:

“An old man watched fascinated as a young man walked along the beach picking up starfish and throwing them into the sea. When the young man was asked why he was doing this he replied, ‘The starfish have been washed up by the tide and if left here they will die.’ The old man said, ‘But there are so many, what does it matter?’ The young man picked up a starfish, looked at it and said, ‘It matters to this one’” (McKay, 1991, p.1).
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First pre-interview notes received from the head of mathematics, British School of Brussels. (Emphases are those of the interviewee).

1. The **MOVE** (from the existing building to the new one) involved a major clear out and re-think of organisation of resources etc., resulting in increased use of resources by teachers.

The new OHP, white board, graphboard, computer display has resulted in a broader range of "delivery styles" by the teachers.

Good sound proofing between classrooms has minimised distractions.

The new **DEPARTMENTAL OFFICE** being centrally situated has resulted in much more collaboration with lesson planning/sharing of resources/doing maths together etc.

The new **6th. FORM LIBRARY** is a quiet area, well resourced and much appreciated and well used.

2. **Behaviour:**

**INCREASED SPACE** allows for different groupings of students, as it is much easier to change seating arrangements.

no damage has been noticed to the new building:
partly because it would be MUCH MORE NOTICEABLE,
partly because TEACHERS MORE AWARE/ "PROUD."

Litter/tidiness - hard to say as the loss of the Refectory has had a bigger effect.
Pre-interview outline sent to heads of mathematics and science, British School of Brussels.

This interview is to explore the effect of the classroom environment on behaviour.

A study of the new science and maths block has been chosen as the building is purpose built and teachers can compare classes in the old building to teaching in the new one.

The environment includes:
- furniture and fittings, (choice and arrangement),
- heating,
- lighting,
- acoustics,
- display,
- space.

Behaviour includes:
- on-task,
- attitude to learning,
- care of the classroom,
- group dynamics,
- noise level.

When the person being interviewed is happy that they have understood the purpose of the interview, the recorder will be switched on and the following questions will be asked. When answering, consideration should be given to the points above.

When designing the building how was the environment in each teaching area decided upon?

Have you found that the teaching areas have caused any changes in behaviour?

Have you any other comments to make concerning the classroom environment and behaviour? These could also be remarks that you have heard others say (there is no need to name the person, just their status.)

Thank you for your help.
Second pre-interview notes received from the head of mathematics, British School of Brussels. (Emphases are those of the interviewee).

Classroom Environment interview

1. Priority - SPACE
   a. **PRACTICALLY** - teacher/students moving round the class.
      - mobility of equipment e.g. computers/video.
   b. **PSYCHOLOGICALLY** - more space = less "pressure,"
      "room to breathe,"
      seemed to "lighten up" the whole learning process.

2. **LIGHTING** - very important.
   a. again a **PSYCHOLOGICAL EFFECT**
   b. **PRACTICALITIES** - ORIENTATION of "TEACHING WALL,"
      avoiding glare from direct light, especially for OHP and TV. (rough sketch provided.)
Importance of good blinds (helioscreens.)

POSITIONING of **ELECTRICAL/COMPUTER NETWORK SOCKETS** for optimum visibility during class demos and accessibility when wheeling computers from room to room, (minimising disruption to seating arrangements.)

**IMPROVED STORAGE FACILITIES** - cupboards/shelves/filing cabinets, (previously no room/not sensibly placed.)
Facilitates use of resources by teachers.

Pastel shades for walls etc. = calming effect.

New building = new impetus to teachers/students to produce stimulating wall displays.

Not noticed a great change in on-task behaviour - (ground floor v. first floor could have an effect?)

Noise level - may not have changed, but doesn't seem so noisy as rooms are bigger/lighter/airier...

3.a. Initially students very impressed with new facilities, (soon taken for granted.)

b. Ex-students particularly impressed.

c. Visitors impressed e.g. next week, head of maths/head of school coming to visit,
   - effect on teacher (and hence student) morale.
   - the practicalities especially mentioned = facilitating teachers job,
      = improved learning.
Extracts from OFSTED report on The Beeches Pupil Referral Unit, Bexley, Kent, 2/11/98.

Pupil Referral Unit, mixed 4-11. *Satisfactory value for money*

“....Provides a calm, caring environment to which pupils respond positively....Weakness in fully implementing health and safety policy. Correspondence shows that matters concerning this have been raised with the LEA by the headteacher....The accommodation is satisfactory. Internally the unit is warm and welcoming with a pleasing range of displays. The exterior is less welcoming and there are a number of vehicle access and parking hazards associated with the multiple use of the site. The accommodation is sufficient to deliver the curriculum with the classrooms being light, airy and well set out. Access to the girl’s toilet facilities through a locked door are not satisfactory and long standing neglect of repairs to the girl’s toilets and the outside store detracts from a mainly pleasant setting.”
Circles indicate the schools referenced in Appendix 6
## APPENDIX 6

### ISSUES RELATING TO ACCOMMODATION FROM OFSTED REPORTS ON SURVEYED EBD SCHOOLS

Data is presented in LEA alphabetical order with date of inspection(s), classification of school and pupils

<table>
<thead>
<tr>
<th>A</th>
<th>New Summerseat House School, Bury.</th>
<th>20/01/95</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEA, Residential, mixed, 8-16</td>
<td>Special measures</td>
<td>“Although the residential provision made for pupils is of good quality the school itself is in a neglected state and is in need of urgent repair and redecoration. The practice of boarding up broken classroom windows adds to the impression of low standards and low expectations... There are accommodation deficiencies. There are displays of good quality art work throughout the school........ The quality of the (residential) accommodation contributes to the good standard of behaviour on this site.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accommodation Key Issues:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“…..improve the school's accommodation”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Cloughwood School, Cheshire.</th>
<th>23/03/98.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEA, Residential, boys, 9-16</td>
<td>Very good school.</td>
<td>“The school accommodation, including the residential areas, is very good, very well maintained, bright, airy and pleasant. Pupils take pride in their living areas and decorate them with care...The quality of art work on display and the standard to which it is presented throughout the building is magnificent.... significantly supports their (the pupils) self-esteem..... The school is a clean and safe environment, and there is a high standard of maintenance and cleaning.”</td>
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<td></td>
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<td>Accommodation Key Issues:</td>
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<tr>
<td></td>
<td></td>
<td>None</td>
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</tbody>
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<table>
<thead>
<tr>
<th>C</th>
<th>Riverside School, Cumbria.</th>
<th>04/03/96.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent, residential, mixed 10-16</td>
<td>Satisfactory value for money</td>
<td>“Some accommodation in key areas is poor. This is recognised by the senior management team and future planning is good.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accommodation Key Issues:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improve accommodation.</td>
</tr>
<tr>
<td></td>
<td>Chelfham Mill School, Devon. 27/04/98.</td>
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<td></td>
</tr>
<tr>
<td>Independent, residential / day boys 7-13</td>
<td>Special measures</td>
<td>This school is part of the Chelfham Therapeutic Schools group.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“The school occupies an unusual site with considerable charm. The residential facility is competently managed...but there is no long term planning for future development or for the planned renewal of resources, for example furniture or redecoration. The teaching areas are adequate in terms of space and light, but many rooms lack piped water and storage areas are cramped...no space for whole school assemblies.... inadequate accommodation for P.E.”</td>
</tr>
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<thead>
<tr>
<th></th>
<th>Chelfham Senior School, Devon. 11/05/98.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent, residential boys, 11-19</td>
<td>Very good value for money.</td>
</tr>
</tbody>
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<tr>
<th></th>
<th>Grangewood Hall, Dorset. 28/11/94.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent, residential, boys 8-13</td>
<td>Good value for money.</td>
</tr>
</tbody>
</table>

| Accommodation Key Issues: | None |
### G  Rosewood School, Dudley, West Midlands. 08/07/96.

| LEA, Day, boys 11-16. | As yet, does not offer satisfactory value for money | “There has been a significant improvement in the quality of the learning environment and classes have new furniture and carpets (previous inspection, 15/3/93.) Pupils are respecting the new buildings and furnishings, no signs of graffiti were seen. Accommodation is of a high standard and resources for learning are generally of high quality.” | Accommodation Key Issues: None |

### H  Windlestone Hall School, Durham. 08/11/93.

| Maintained, (moving over to LMSS) residential / day, mixed 11-16. | Value for money was not identified | Inspection report of 20/05/96 not available on Internet. “The school is accommodated in a Grade 2 listed building, which imposes some limitations....some of the classrooms are cramped and offer limited storage space....The school is well respected by pupils and graffiti and vandalism are absent....The residential accommodation has several deficiencies, some of which derive from the layout of the building but which could be mitigated.....” | Accommodation Key Issues: “.... Plan a phased programme of unit redecoration and refurbishment... Review the accommodation to insure that pupils’ entitlement to a broad and balanced curriculum is secured.” |

### I  Moatbridge School, Greenwich. 03/06/96.

| LEA, Day, boys 7-16 | Satisfactory value for money. | “The school has made considerable efforts to improve the decor and furnishings of its buildings. They are well maintained and the good display of pupil work is a welcoming feature of the school.... The pupils show great respect for their room and facilities.... The school has achieved much in improving its environment.” | Accommodation Key Issues: Improve toilet facilities (to ensure privacy, hygiene and dignity) and special facilities for art and P.E. |
### J  Hailey Hall, Herts. 28/04/97.

| LEA, Residential / day, boys 11-16. | Good value for money | “The grounds and building are well maintained and plans are in hand to develop surplus accommodation.... Pupils have pride in their work, much of which is being used to enhance display, and in their environment, which is attractive, free of graffiti and litter and well maintained with no evidence of vandalism.” | Accommodation Key Issues: None |

### K  Stubton Hall School, Lincolnshire. 02/03/98.

| LEA, Residential / day, mixed 6-16 | Sound value for money | “The property and the school environment are treated with care.... The residential accommodation is adequate.... but does not reflect the warmth and welcome shown by staff and pupils.... The school’s accommodation is adequate. Recent spending decisions have been effective in improving the quality of both the environment and of the curriculum....and these have had a positive effect on pupils attainment and progress....A recent refurbishment has been effective in creating spacious and attractive classrooms, a comfortable hall and friendly dining areas....The work of the school and its pupils is reflected in interesting and attractive displays in all classrooms and circulation areas....The school grounds are magnificent and extensive. The richness of the environment has not yet been sufficiently exploited across the curriculum.” | Accommodation Key Issues: None |

### L  Ernest Cookson Boys School, Liverpool. 08/02/99.

<p>| LEA, Day, boys 5-16. | Satisfactory value for money | “The accommodation is good with the exception of lack of specialist facilities at Key Stages 3 and 4....The school building and classrooms are clean....The very high quality of display on corridors and classroom walls creates an attractive and welcoming atmosphere and enhances the learning environment” | Accommodation Key Issues: None |</p>
<table>
<thead>
<tr>
<th>M</th>
<th>Meade Hill Centre, Manchester. 09/02/98.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEA, EBD and mainstream support, day, mixed 5-16</td>
<td>Satisfactory value for money</td>
</tr>
<tr>
<td>“The school is housed in a modular flat roof building from the 60’s period.... situated in a busy main road in the city conurbation.... The school has attempted to provide specialist accommodation for art, science, D.T. and P.E. but is seriously hampered by the restrictions imposed by the building.... The school provides a safe and welcoming environment, which is attractive, bright and clean.... Best use has been made of space available..... There is no graffiti and no vandalism.... pupils look after the buildings well.... There are wall displays of a very high standard which the pupils leave in place and do not touch.”</td>
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<tr>
<td>Accommodation Key Issues:</td>
<td>None</td>
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<thead>
<tr>
<th>N</th>
<th>Castle Dene Special School, Newcastle. 12/09/94.</th>
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</thead>
<tbody>
<tr>
<td>LEA, Day, mixed 6-16</td>
<td>Value for money</td>
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<tr>
<td>“The school makes efficient use of the accommodation though the building does not enable.... specialist provision.... In general the accommodation is in good condition but not suitable for secondary age pupils.”</td>
<td></td>
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<tr>
<td>Accommodation Key Issues:</td>
<td>None</td>
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<thead>
<tr>
<th>O</th>
<th>Sheridan House School, Norfolk. 27/11/95.</th>
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</thead>
<tbody>
<tr>
<td>Independent, residential therapeutic community, mixed 11-16.</td>
<td>Good value for money</td>
</tr>
<tr>
<td>“Pupils are taught in accommodation appropriate to their age and numbers.... Insufficient accommodation for specialist subjects.... Generally in reasonable decorative order.... communal living areas are rather barren and ways should be sought to soften the environment.... There is no evidence of graffiti and little vandalism.”</td>
<td></td>
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<tr>
<td>Accommodation Key Issues:</td>
<td>None</td>
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<tr>
<th>P</th>
<th>Breckenborough School, North Yorkshire. 13/05/96.</th>
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</thead>
<tbody>
<tr>
<td>Independent, residential, boys 10-16</td>
<td>Satisfactory value for money</td>
</tr>
<tr>
<td>“.... Adequate accommodation.... Library drab.... Refurbishment underway of bedrooms and bathrooms.”</td>
<td></td>
</tr>
<tr>
<td>Accommodation Key Issues:</td>
<td>None</td>
</tr>
</tbody>
</table>
| Maintained, residential, mixed 11-16. | Value for money | The school is divided into two sections, which were individually assessed.  

a) Main School and hostel  
“The school is working hard to establish an ethos and environment that supports pupils learning and makes them feel good about themselves.... Classrooms are spacious with new carpeting and are well furnished. Recent decorating and landscaping convey a bright and orderly and welcoming impression to visitors. Pupils appreciate the value to them of these recent developments and there is no abuse of the fabric.... Public displays are attractive and informative but few displays feature work by pupils.... A positive and pleasant learning environment.... The hostel is drab and furniture is generally unattractive, in poor condition and does not facilitate private study. A major refurbishment programme is about to begin.... The hostel is homely and standards of cleaning are good.” |

| Accommodation Key Issues: None |
Unsatisfactory value for money

b) Locksway Road Unit pupils with severe emotional difficulties are schooled and housed

“.... The building, its location and its lack of specialist provision, seriously affects the quality of the curriculum and the standards achieved. There are no specialist rooms apart from a very small gymnasium. The shape and location of the art/craft area makes it impossible to supervise disturbed pupils and there has been no suitable upgrading of this room … The unit is situated some 6 miles from the main school across a busy city centre. This isolates staff from colleagues and pupils are denied ready access... The accommodation severely limits pupils access to the National Curriculum.... New furniture.... ample new storage.”

R Deerlands School, Sheffield. a) 06/03/95, b) 03/03/97, c) 14/06/99.

a) 06/03/95. Maintained day, boys 11-16. Special measures

“The school has a sufficiency of accommodation, but the design does not provide a satisfactory environment for the delivery of the secondary curriculum, lacking designated facilities.... Some classrooms are small and there is a lack of storage space.... The site is spacious.... There are no signs to indicate either the entrance to the school or the school itself. The entrance area is unwelcoming.... Although the classrooms are reasonably clean and maintained the paintwork is drab and in some places peeling. Doors and grills.... show signs of damage. Some light sources have cracked or missing covers.... Displays of pupils work in classrooms and common areas are limited.... Overall the site does not help to create an environment conducive to learning.”

Accommodation Key Issues:
None

Accommodation Key Issues:
Improve the general learning environment in the school and provide a wider range of better quality resources.
<table>
<thead>
<tr>
<th>Date</th>
<th>Type</th>
<th>Key Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>03/03/97</td>
<td>Interim HMI visit. Not OFSTED, included for continuity</td>
<td>Special measures no longer required. “Internal building work and some refurbishment have improved the specialist teaching areas for science and technology and have provided a small library. There are areas where internal redecoration is needed and more attention should be given to providing a stimulating environment.”</td>
</tr>
<tr>
<td>c) 14/06/99. County, boys 11-16</td>
<td>Special measures (despite indicated improvements)</td>
<td>“Some refurbishment, facilities upgraded and new library. The accommodation is adequate to meet all National Curriculum requirements. Improved greatly since last inspection (06/03/95)…recent painting has improved the appearance…graffiti removed quickly…good displays of pupils work, which helps to motivate pupils.”</td>
</tr>
<tr>
<td>S Childscourt School, Somerset. 28/11/94.</td>
<td>Independent, residential, mixed 9-16</td>
<td>Value for money, not identified. “The main building dates from the turn of the century…rambling large property…Grade 2 listed building, which is expensive to maintain. Complete rewiring… and the renovation of the girl’s bedrooms feature among recent improvements but, elsewhere much needed refurbishment is necessary…. The accommodation does not provide the facilities necessary to promote the well being and all round development of the pupils…The senior management team is spending substantial sums on maintenance but there is little evidence of a phased refurbishment plan, designed to ensure that the accommodation fully supports the education and care needs of the pupils.”</td>
</tr>
</tbody>
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| LEA   | 17/06/96. Residential / day boys 11-16 | Good value for money | “The accommodation is clean and well respected by the pupils..... More use could be made of the IT room and the extensive grounds surrounding the school....” |
|       | 28/06/99.                               | Good value for money. | “The buildings and equipment are generally well respected by all pupils, although there is heavy wear and tear to some classroom furniture and doors.... Amount and range of accommodation is satisfactory and clean, although the school and residential areas have not been maintained well.... Furnishings are near the end of their useful life.” |

**Accommodation Key Issues:**
None