RESIDENTIAL FACILITIES FOR THE INTELLECTUALLY HANDICAPPED

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INTRODUCTION

Residential institutions have been, and continue to be, a major means of coping with certain societal problems, most particularly as a method for caring for those persons labelled as mentally ill, intellectually handicapped (1) or delinquent. Recently, however, concern has been growing regarding the unintentional consequences of institutional living for the residents. Rather than being therapeutic, institutions are seen by many as debilitating and dehumanizing the residents and returning few to more satisfactory levels of social functioning.

The studies of Bowlby (1951, 1969) on maternal deprivation, the sociological studies of Goffman (1961), Blatt (1966) and Morris (1969) and research on the effects of unstimulating institutional environments on intellectual development and functioning (reviewed by Balla, Butterfield and Zigler, 1974) have been cited as evidence against the institution. The influential President's Panel on Mental

(1) Throughout this essay the terms 'intellectually handicapped' or 'retarded' will be used to refer to those persons who share the common feature of an arrested development of intelligence. No distinction will be made between those labelled 'mildly', 'moderately' and 'severely' or 'profoundly' handicapped unless there is evidence that special considerations apply to one of these groups.
FIGURE 1

Adapted from Kugel and Wolfensberger (1969)

1850 Make Deviant Nondeviant 1880

1870 Shelter Deviant from Society 1890
Isolation Economization Labour

1880 Protect Society from the Deviant 1925
Marriage Laws Exploitation
Sterilization Non rehabilitation
Segregation Inexpensive 'Warehousing'
Dehumanization

1918 Loss of Rationales 1925
Continuity of Momentum
Stagnation PRESENT
Questioning of traditional model
Retardation in the USA reflected the widespread questioning of the suitability of the traditional residential facility by stating:-

"The challenge to state institutions is how to accelerate the change from large isolated facilities to smaller units close to the homes of the patients and to the health, education and social resources of the community, and the challenge to both state and private residential facilities is how to replace the old concept of custodial care, wherever it still exists, with modern programs of therapy, education and research" (President's Panel, Kugel and Wolfensberger, 1969).

The rise of the residential institution

In order to understand how the residential institution became society's primary solution to the problem of intellectual handicap it is necessary to adopt an historical perspective. Wolfensberger (1969) has identified three major periods in the history of institutions for the intellectually handicapped in the USA. He relates changes in the provision of facilities to changes in society's attitudes towards this group which it regards as a deviant, and a 'surplus population' (Farber, 1968). Figure 1 illustrates the evolution of institutional practices in the care of the handicapped. Although there is little comparative literature it appears that Wolfensberger's analysis has relevance to the Australian scene, where the traditional provision of large, isolated institutions is also being questioned.
The major periods described by Wolfensberger are:-

(1) Mid 19th century, when permanent residential schools were founded. Hopeful attitudes and unrealistic expectations for the 'treatment' and 'cure' of intellectual handicap prevailed. The purpose of the institution could be described as aiming to make the deviant group nondeviant, and to return them to the community.

(2) Around 1870, when hopeful attitudes were replaced by pity and maudlin sentimentality, 'God's innocent ones' were to be permanently sheltered and protected from the larger society. The institution aimed to protect the deviant group from the nondeviant majority.

(3) From the beginning of the 20th century onwards the aim of the institution became to protect society from the deviant group. Intellectual handicap was thought to be connected with criminality, pauperism and degeneracy. The early eugenists saw this group as a menace to society, and responsible for most social problems. Such attitudes and opinions led to the construction of larger and more durable institutions designed to segregate the intellectually handicapped from society. Institutions became custodial rather than educational. The medical model was widely adopted, with most institutions organized in terms of a 'hospital' hierarchy. At the same time the notion that intellectual handicap was incurable became the prevalent view. An emphasis on economy led to a distinctive institutional architecture with large dormitories. New institutions were
constructed in rural areas, both to provide farming opportunities, and to remove the residents as far as possible from the populace. Dehumanizing practices and deprivation of many legal and civil rights became commonplace. In effect, institutions had become the antithesis of what the original founders had hoped for. Few questioned the traditional institutional model and, caught in the economic squeeze of the Depression and the War, institutions for the intellectually handicapped stagnated.

(4) In the last 10 to 15 years several developments, in addition to accumulating evidence concerning the negative effects of institutional living, have led to a questioning of this model. For example, associations of parents of intellectually handicapped children have become strong and vocal, and have demanded that training and rehabilitation replace the more common custodial treatment of those in institutions; the notion of a fixed 'I.Q.,' has been increasingly questioned; the Civil Rights Movement in the USA raised questions about the denial of such rights to the institutionalized; an alternative model of care for the intellectually handicapped, developed primarily in Scandinavia, has been increasingly reported on and recommended; recently rising costs of building, maintenance and staff salaries have made large institutions less attractive economically; mental health professionals have been active in exposing conditions in existing institutions and encouraging community services (for example, Blatt and Kaplan, 1966 and Wolfensberger, 1969).
Concurrent with moves to evaluate existing facilities for the intellectually handicapped, and to plan new and radically different styles of facilities, there is an expanding literature in this field. For example, Kugel and Wolfensberger's 'Changing Patterns in Residential Services for the Mentally Retarded' (1969) and Baumeister and Butterfield's 'Residential Facilities for the Mentally Retarded' (1970) reflect a growing inter-disciplinary interest in changing concepts of residential care, and a response to the widespread dissatisfaction with traditional models. In an attempt to produce a comprehensive picture of residential facilities recent literature typically refers to:

1. Sociological studies describing the daily routines of different facilities observed, which have provided documentary support for Goffman's writings about 'total'institutions.
2. Psychological studies relating institutional living to changes in resident cognitive functioning.
3. Descriptions of contrasting types of facilities in terms of such features as their architecture, organizational structure, staffing and amenities.

What does not appear to have been developed is a consistent theoretical and conceptual framework which can be used to integrate these different approaches to the study of residential facilities. In the first part of this essay an attempt will be made to elaborate a 'systems approach' which may prove useful for integrating the existing research findings in this area. It will also be proposed
that a 'systems approach' to the extraordinarily complex study
of residential environments, and their effects on intellectually
handicapped residents, can provide a conceptual framework for
future research by focusing on relevant dimensions in the social,
physical and organizational sub-systems of different types of facilities.

The critical research task in this area is to isolate the
particular aspects of residential environments which are likely to
have a positive or adverse effect on resident growth and development.
There is in the literature a clear preference for a new style of
facility and a new philosophy of care for the intellectually handicapped.
What has not been explored empirically is the relationship between
these preferences and outcome, i.e. actual effects on the residents.
It is assumed that the new style of small 'purpose-built' facilities
integrated into the community will avoid the negative features of
the traditional institution and provide a suitable physical
environment for implementing the 'developmental' or 'training'
model of care. This is contrasted with the more custodial regime of
the older traditional facility.

The second part of the essay will focus on available research
which has attempted to link institutional living with changes in
resident functioning. The limitations of this research will be
discussed and some new developments in relevant methodology outlined.
It will be seen that many areas of vital interest to those planning
residential facilities for the intellectually handicapped remain largely
unexplored, but that relevant questions are now being asked. For example, to what extent is it possible to implement a 'developmental' or 'training' model of care within a traditional institution? How are different models of care translated into staff practices, and consequently how do they affect residents positively and negatively? Is it possible to select direct care staff who will function well within new style facilities? How is it possible to avoid creating 'mini-institutions' which reproduce some of the negative features of traditional institutions within the new, purpose-built units?

At the present stage of research it appears to be easier to ask questions than to provide definite answers to administrators and others concerned with providing and maintaining facilities. However, it will be seen that there are some trends in the available evidence which can serve as guidelines. Although clear evidence for the beneficial effects of new-type facilities on resident growth and development is lacking, it should be possible to at least avoid many of the negative and dehumanizing features of 'poor' institutional environments. It is now possible to go beyond 'global' descriptions of residential facilities and explore the dimensions which appear relevant to the effects which they have on their residents.
A 'SYSTEMS' APPROACH TO RESIDENTIAL FACILITIES

Introduction

Klaber (1970) observed ... "The entire area of human systems, as related to intellectual handicap, is unexplored. The complex interactions of attendants, supervisors, administrators and professionals have yet to be described".

Bermingham (1974) explored the applicability of 'systems analysis' to the planning of services for the intellectually handicapped. Few attempts appear to have been made, however, to apply systems concepts to the study of residential facilities.

In this section it is proposed to contrast the observed differences in treatment ideologies and practices of residential facilities in systems terms. Katz and Kahn (1966) have proposed that human organizations as social systems vary in their degree of 'openness'. The traditional model of the large, isolated, institution most closely resembles Goffman's 'ideal-type' (1) of a total institution, and as such can be regarded as a form of 'closed' social system. In contrast,

(1) Weber's 'ideal-type' analysis is a methodological tool which can be used for studying organizations or social systems. The actual performance of a particular organization or system may be compared with an idealized model.
new-style facilities which are centrally located in the community (as recommended by Nirje, 1969, Baumeister, 1970) can be seen to operate as relatively 'open' systems.

Features of the closed-system type of institution will be contrasted with examples from the planning and operation of two small hostels for the intellectually handicapped recently opened in Canberra, and with descriptions of new-style facilities developed elsewhere.

Advantages of a Systems Approach

1. Attention is focused on the relationship of the social system under consideration to the larger environment, which places constraints on that system. For example, the residential facility can be seen as part of a larger system of services for the intellectually handicapped, and it is possible to identify the constraints imposed on the sub-system by the larger system.

2. Systems theory emphasizes the mutual interdependence of all parts of a complex system. For example, the organizational, social and physical sub-systems of residential facilities can be seen as interrelated.

3. The systems approach permits an integration of the so-called 'macro' approach of the sociologist and the 'micro' approach of the psychologist to the study of complex social phenomena. In the search for the psycho-social features which differentiate residential environments
both approaches are necessary to avoid dealing with too few of the significant variables in the total situation. It is possible to 're-interpret' both psychological and sociological studies in systems terms.

4. Dybwad (1969) noted the advantages to existing institutions of consultations on a 'systems' level rather than on the more frequently sought, but less effective, clinical level. 'Systems' level consultation would focus on the changes which are necessary in the basic structure and process of the institution before changes can be achieved in the growth and development of individual residents.

Because of the likelihood that systems consultation would recommend far-reaching changes in the traditional institution Dybwad, and Morris (1969) both suggest that it may be resisted.
Traditional institutions as closed social systems

Pauline Morris (1969) concluded that, in many features, Britain's subnormality hospitals approximated as closely Goffman's 'ideal type' of the total institution as did prisons (1). As such they operated as relatively 'closed' social systems. Katz and Kahn, in 'The Social Psychology of Organisations' (1966) have described typical features of closed social systems. Studies of existing institutions for the intellectually handicapped (notably Morris' survey of subnormality hospitals) suggest that a number of these closed system features are present. In this section of the essay the features will be outlined and examples provided from descriptive studies.

(1) Goffman (1961) himself wrote that his classification of 'total institutions' was not ... "neat, exhaustive nor of immediate analytical use", but was meant to serve as a start from which a grouping of observations on institutions might be made. Goffman's model continues to provide a stimulating conceptual framework for thinking about residential facilities. Morris (1969) and Raynes and King (1974) have argued for a refinement of the model as dissimilarities between such institutions as prisons, boarding schools, mental hospitals may be greater than would at first appear. In the study of residential facilities for the intellectually handicapped Goffman's model resembles what has come to be regarded as the typical, bleak institution associated with the last century.
1. "The demands of the environment are constant and unambiguous"

Goffman (1961) described a total institution as ...

"a place of residence and work where a large number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life".

Morris described the 'encompassing' tendency of the mental subnormality hospitals, where all aspects of the residents' lives were conducted within the same environment. The demands of this environment were constant, and there was little or no chance to experience any other. For example, Morris found that 42% of sampled residents were confined to the ward in which they lived and that very few returned to live in the community. The few leisure activities which were made available also took place within the institution. Morris suggested that, because of the isolation of such institutions, the life of the staff tended to be almost as confined as that of the residents.

The lack of ambiguity of demands made on residents within the residential setting is related to the observed emphasis on routines and standardized ways of handling them. The 'typical day' in the traditional institution is highly structured, with an emphasis on physical routines, administrative and domestic duties. Sommer (1969) has written of the 'institutional sanctity' which tends to prevail whenever people spend long periods of time in any environment. This results in the residents and staff of institutions coming to accept
routine as sacred, and stability as all important. It can be observed, for example, when furniture is returned to its original location after cleaning time. Writing of a 'typical day' in a total institution, Goffman observed ...

"First, all aspects of life are conducted in the same place, and under the same single authority. Second, each phase of the member's daily activity is carried on in the immediate company of a large batch of others, all of whom are treated alike, and required to do the same thing together".

Morris found that, apart from during the routines of eating, washing, and toiletting, very few demands were placed on the residents, and long periods of inactivity were noted. 'Mass treatment' of residents was observed and Morris related this to the widespread overcrowding and understaffing. She noted ...

"the mass treatment of patients demanded by bureaucratic administration is reinforced by the fact that more individualized treatment could not be offered in many cases because of the existing physical conditions of the hospitals".

The importance of the 'physical system' of facilities will be discussed in a later section.
Morris also referred to the degree of 'structural inertia' which exists in such institutions, which ensures that continuity is achieved by routinization, and also reduces the likelihood of change or innovation.

2. "The state of the system is not oriented to change, but constant and straining towards balance"

Several writers (Dybwad, 1964, Morris, 1969, Roos, 1970) have commented on the typical inertia of residential institutions and the difficulties encountered in implementing newer models of care for the intellectually handicapped. It appears that not only is the system not oriented to change, but that it also has features which are themselves barriers to achieving change. Such obstacles to change are:

(i) The momentum of current service patterns

The sheer extent, size, monetary value and economic utility to certain communities of current physical plants, facilities and services for the intellectually handicapped tend to block or delay action toward change. It is more common to find funding departments oriented towards quantitative improvements in current institutional models than towards qualitative change through innovation. A vicious circle tends to operate whereby low fiscal priority is given to non-residential services and high fiscal priority is given to the renovation and extension of existing residential facilities.
(ii) **Staff concerns**

Roos (1970) observed ...

"a new administrator attempting to implement change ... soon learns to anticipate with a high degree of probability that any suggestion for change will be met by the staff with lengthy explanations of reasons why the proposal will fail".

Some of the implications of change which are seen as threatening to staff appear to be common to organizational change of many kinds; for example, possible threats to security, status, and promotion opportunities. Others appear to be more specific to the area of residential care for the intellectually handicapped. Direct care staff may fear that the intensive programming for individual residents, which is a feature of newer models of care, will lead to increased supervision, more stringent work evaluation and the assignment of greater and more specific responsibilities for the education, training and supervision of residents. A fundamental change of attitude toward the potential of the intellectually handicapped may be required. For example, in Morris' survey of subnormality hospital nurses the majority stressed 'nursing and care' above 'rehabilitation or social and/or habit training' as the most important aspect of their role, irrespective of the degree of handicap of their patients.

At a managerial and administrative level the 'system' may resist change for other reasons. Institutions have traditionally operated with monolithic, autocratic management systems, stressing
vertical rather than horizontal organization. The adoption of modern service models is likely to involve fundamental changes in managerial style, and to change the balance of power relationships between the various sub-cultures of the traditional institution. This aspect of change will be explored in more detail in 'The Social/Organizational System' in relation to de-centralization.

(iii) The isolation of the institution

Morris noted the professional isolation of the medical and specialist staff of the subnormality hospitals, and how advances in psychiatric hospitals, for example, in the use of chemotherapy, and the development of outpatient care, have made very little impact on institutions for the intellectually handicapped. Direct care staff who live in the institution may become socially isolated. Residents themselves become isolated from the world outside the hospital, with few returning to live in the community, so that they may become less motivated to leave the safety of the closed system that they have come to regard as their 'home'. The extremely low resident 'turnover' of the traditional institution means that it receives very little 'feedback' of information of the sort which might stimulate changes.

(iv) The continued dominance of the 'Medical Model'

The relevance of the 'medical model' for the care of the intellectually handicapped is increasingly being questioned (Mercer, 1965, Morris, 1969, Dybwad, 1969, Wolfensberger, 1969). Wolfensberger has described the medical model as an obstacle to change because it focuses attention away from the handicapped person's capacity for
learning, growth and development. Morris has argued that the intellectually handicapped are most readily accommodated by the larger society by the 'convenient fiction' that they are, first and foremost, in need of some medical attention. In one of the few systematic surveys of the needs of an intellectually handicapped population Leck, Gordon and McKeown (1967) concluded that only half of the patients in the subnormality hospitals in the Birmingham, England, area required the care of a hospital. The others required training and occupation in a sheltered, non-hospital environment which could best be provided by a local authority Welfare or Education service.

The relevance of the medical model for the mildly handicapped has been especially questioned. It has been argued (Mercer, 1965) that this group require no more than routine health care, and that an emphasis on their supposed medical needs alters the perspective from which direct care staff view them, and de-emphasizes their potential for growth and development. Whereas the medical model can be seen to provide a useful frame of reference for the severely and profoundly handicapped, many of whom have associated physical disabilities, it has been relatively unproductive in providing insights in the area of mild intellectual handicap. A major obstacle to change associated with the medical model is the traditional hospital hierarchy which is characterized by rigid status distinctions and an emphasis on hospital routines. This is explored in more detail in the 'Social/Organizational System'. 
3. "Leading task systems are simple, clear and highly formalized"

Morris described the prevailing ideology of the subnormality hospitals as 'curative/custodial'. Where the traditional emphasis on cleanliness, tidiness and orderly behaviour predominated it appeared that little more was expected of the nursing staff who had direct care of the residents. Their tasks were dictated by the custodially oriented views of the senior staff in the hospital hierarchy. In the conditions of understaffing and overcrowding which appear to be typical of the traditional institution, tasks are routinized and kept as simple as possible (this makes it easier to 'hand over' duty to oncoming staff.) As an example, direct care staff may find it easier and quicker to feed and dress residents than to encourage them to develop self-help skills. Morris and Ullmann (1967) reported on the amount of time which staff spent on domestic work. Morris observed that in the absence of 'auxiliary' staff, the nurses in subnormality hospitals had to do a considerable amount of domestic work, although they maintained that they would prefer to spend more time with residents. In his study of psychiatric hospitals Ullmann found that members of the 'aide-culture' were expected to engage in high visibility behaviours, which included housework and generally less importance was attached to training.

While the leading task systems of the institution continue to be defined in terms of cleanliness and order, and direct care staff are rewarded for these, there seems little chance that individualized training programmes for residents which encourage 'self-help' and independence will be implemented.
4. "The authority system requires quick decisions. Communication channels are limited"

Morris concluded that in the traditional institutional setting ...

"the power structure and the resultant pattern of communication is so hierarchically structured as effectively to neutralize the curative function of the hospitals, in much the same way as the reformatory function of prison is neutralized".

Traditionally such institutions have been dominated by the medical superintendent who had the ultimate responsibility for the functioning of the institution and all decisions, even those of a non-medical nature such as residents' rights and privileges, visits, discipline, and inclusion in school were ultimately made by the physician.

Communication channels in the subnormality hospitals were very limited. Nursing staff had very little contact with medical, training or administrative staff. There were few opportunities for discussions about residents with medical staff, and very few felt involved in decision making regarding treatment and training. Formal meetings between superintendents and other medical and senior nursing staff for the purposes of discussing policy were infrequent. Morris suggested that the debasement of the nursing role by those higher in the power structure, and the failure of communication, contributed to the poor staff morale observed. Psychologists employed in the subnormality hospitals also complained of unsatisfactory
Communications with other staff. There appeared to be virtually no cross-fertilization of ideas between medical, nursing and specialist staff. Morris commented...

"This lack of communication not only stunts the development of knowledge and skill amongst nursing staff in particular, but also results in strong feelings of frustration and dissatisfaction among specialist staff, who feel their position within the institution as of 'peripheral importance'".

In a general discussion of organizational effectiveness Katz and Kahn (1966) emphasized the importance of communication in helping individual staff members relate their roles to the goals of the organization for which they work. It appeared that the nursing staff of the subnormality hospitals were rarely made to feel part of a 'therapy team', and few efforts were made to relate their role to the hospital's objectives.

5. "The boundaries of the system are sharply defined and impermeable"

In addition to the natural barriers of physical isolation, the subnormality hospitals appeared to have erected others which sharply defined the worlds of 'inside' and 'outside' the hospital. For example, it was found that little was done to encourage contact between the residents and their families; time away from the institution was described as 'parole'; visiting hours tended to be rigid; few efforts were made to link the institution with the local
community. The staff tended to see the institution as a 'closed world' which could only be understood by those whose lives were largely encompassed by it. Morris suggested that the staff of the hospitals preferred to keep the boundaries relatively impermeable. She commented ... 

"there is an unconscious resistance by staff at all levels to allowing the outside world to impinge upon the institution and to allowing patients to leave the hospital and see the world outside for themselves. Either happening may disrupt the social equilibrium of the regime in which a vital component is 'order'. 'Order' is a very fragile thing, achieved only as a result of long and patient efforts on the part of the staff, and although easily disturbed, it can only with difficulty be re-established. Furthermore, staff develop a proprietorial interest in their patients, and for many of them responsibility, care and control are indivisible".

Farber (1968) also considered that the breaking of ties with the outside world is one of the institution's defenses against the intrusion of the norms and values of the external community into institutional routines.

This outline of the closed system features of the traditional institution for the intellectually handicapped draws attention to some of the difficulties which are currently being faced
by those who are attempting to introduce new approaches to residential care. The closed system of the institution can be seen to actively resist change and innovation, and to be characterized by a 'structural inertia'. New concepts of treatment and training for residents are more likely to be resisted if they are perceived as coming from 'outside' the system. (Morris found that policy directives from the Ministry of Health were largely ignored by direct care staff, who saw them as irrelevant to their day to day problems in dealing with residents).

Nevertheless many older style institutions are attempting to implement new programmes and approaches to resident care. The question remains whether these will be successfully implemented and maintained within social systems which are characterized by a powerful resistance to change.

Tizard (1974a) has commented ...

"it can be argued, on the basis of history, that large institutions may be temporarily reformed from time to time but that such places tend inexorably to revert to their ideal type, namely that of the total institution".
New style facilities as 'open systems'

In this section the systems concepts of Katz and Kahn's 'The Social Psychology of Organizations' (1966) will again be used. Examples of 'open system' features in the area of residential facilities for the intellectually handicapped will be taken from authors who have elaborated new models of care (President's Panel, Kugel and Wolfensberger, 1969, Nirje, 1969 and Grünewald, 1974), and features of new residential hostels for the mild and moderately intellectually handicapped recently opened in Canberra.

Katz and Kahn describe features of an 'open' social system:-

1. "There is constant interchange between the open system and the larger environment, which places constraints on the system"

In contrast to the 'closed-system' features of the traditional institution, which was isolated from the community both physically and by its tendency to 'encompass' the lives of residents and staff, the preferred small residential facility is placed in the community. The President's Panel (Kugel and Wolfensberger, 1969) proposed a change to smaller units close to the homes of residents, and to the health, education and social resources of the community. Nirje (1969) has written extensively on the 'normalization' principle which advocates furnishing the intellectually handicapped with patterns of life which are as much like the normal life-style as possible. He suggests that this is best achieved by integrating residential facilities into the community. Dybwad (1964) argued that such integration is less likely to disrupt bonds between residents and their families. Families should continue their involvement with the residents who may return to live at home.
from time to time. When the facility is located in the community the purpose of the building becomes similar to that of a normal home, with residents leaving for school, work and leisure activities. Residents are encouraged to spend time at home for holidays, or to be admitted to the facility for flexible periods, for example, when the family is under special stress, rather than on a permanent basis. It is thought that the location of facilities in the community may have a favourable impact on the attitudes of local residents towards intellectual handicap.

The ACT hostels have been located in suburban neighbourhoods and are small enough (with ten residents each) to be physically integrated with surrounding houses. Residents leave the hostels for school and other activities, and spend time away from the hostel as requested by their families. Volunteer helpers from the community come into the hostels. With the exception of the hostel managers, staff live in their own homes and come to work on a shift basis.

**Constraints imposed by the larger system**

In looking at residential facilities as open-systems it is possible to observe the constraints which are imposed upon them by the larger system of which they are a part. In the development and functioning of the ACT hostels the following constraints can be seen to have operated:-
(a) **Lack of relevant expertise**

The hostels have been developed according to new concepts in residential care for the intellectually handicapped. In Australia Government provision of residential facilities for the intellectually handicapped has traditionally been in the form of large institutions, usually hospitals. For this reason there were no suitable models of small home-like facilities elsewhere in the country. The concept of the hostels is a new development for a Government bureaucracy used to operating within the traditional 'Medical Model' of intellectual handicap, with its provision of hospitals, wards and nurses.

(b) **Staffing**

The fact that there is no Australia-wide pool of personnel trained to work in non-hospital settings is a further constraint imposed by the larger system. Job mobility is reduced by the different requirements for qualifications of individual States and training in the 'developmental' or 'training' model of intellectual handicap has to be largely 'on the job'.

After a consultation visit to Australia Dybwad (1969) commented on the great unevenness in terms of facilities, and staffing which he observed. He commented ...

"As far as hostels and community residences are concerned we have observed in Australia what is true of other countries: an over-concern with physical aspects, both of the residents and of the building, has led to the employment in these facilities..."
of nurses, or institutional matrons, a practice that is increasingly being questioned. Considering the rapid rise in hostels and community residences which can be expected, the need to develop new methods for the recruitment and training of personnel must find early recognition".

A further constraint from the wider system in the area of staff recruitment is the fact that typically residential work has been associated with low pay, poor working conditions and long working hours. Although some progress has been made in improving these conditions they may still act as a deterrent to potential staff.

(c) **Financial constraints**

As a sub-system within a large Government department the hostels' development had to be funded from within the department's overall budget. The bureaucratic system of financing is likely to lead to delays in making modifications to the hostels, and possible delays in obtaining equipment from Governmental sources. Such constraints are less likely to be experienced by facilities funded by non-Government sources, for example by Voluntary Societies. They may also serve to reduce the 'home-like' atmosphere of the hostels as the way in which things are purchased is unlike that of a family home.

(d) **Community/environment constraints**

The integration of intellectually handicapped residents is only possible to the extent that the local community is willing to
accept them. The difference between being physically in a community, and being psychologically and socially a part of it is emphasized each time there is protest from local residents about the existence of a facility in their community.

The larger environment may also place constraints on the availability of 'normalizing' experiences. For example, the inadequacy of public transport or distance from shopping and recreational facilities may make them inaccessible to residents.

For residents who have additional physical handicaps, the lack of special facilities in the wider community (in Australia, in contrast to the situation in Sweden, for example) is likely to prove a serious constraint to their mobility and integration with the non-handicapped community.

2. "The boundaries of the system are permeable and fluid"

In contrast to the fixed and inflexible boundaries of the segregated institution the open system facility has less rigid distinctions between those 'inside' and those 'outside' the system. This openness affects the lives of both residents, and the staff, as both groups can move between the facility and their own family homes.

It can be seen that the fluidity of the boundaries of an open system can itself lead to some confusion and lack of internal stability. In the first months of operation of the ACT hostels, the staff of one
hostel reported that they were not spending sufficient time with
the residents (because of the very 'open' policy of allowing flexible
times for home visits, and outings) to develop close relationships
with them. There appeared to be some uncertainty about the boundaries
between the hostel system, and the residents' own home and family
systems. It became necessary to reduce the 'openness' of the system
temporarily by limiting times away from the hostel, to develop some
internal stability. It is likely that the extent to which the system
remains open and flexible is decided partly by this need to gain
internal stability, and partly by the training and personality
characteristics of the staff.

3. "Open systems can be seen as cycles of events"

In systems terms an organization can be seen as a cycle of
activities which transforms 'input' through a 'process' and exports
the 'output' back to the environment. It is possible to conceptualize
a residential facility in these terms. The 'input' is the new residents.
The 'process' is the behaviour of the staff within the facility, and
the 'output' the changes in growth and development of the residents.
Katz and Kahn (1966) refer to the 'maintenance' functions which are
carried out by socialization agencies such as schools, churches,
rehabilitation agencies, in training people for roles in society at large.
Residential facilities for the intellectually handicapped appear to
serve such functions.

In the open system of the ACT hostels it is hoped to maintain
the cyclic nature of these events in a way which is not possible in traditional facilities where few residents leave the institution to lead semi or fully independent lives. A flexible admissions policy will make it possible for residents to return to the hostels after periods at home. As residents progress to more independent living they may leave the hostels.

4. "Open systems are receptive to information input and feedback"

The traditional institution receives very little 'feedback' on its activities. The fact that very few residents return to live in the community, and the isolation of the institution, together with the fact that policies deter close contact with community or parent groups, all tend to insulate the institution against feedback which could be used to evaluate effectiveness or stimulate changes.

The ACT hostels aim to remain receptive to feedback from several sources including the residents' families and specialists who work with the hostel staff.

5. "Open systems continue to grow and become more complex"

Katz and Kahn refer to the need for open systems to develop 'adaptive structures', which function to gather advance information concerning trends in the larger environment, to carry out research and to plan for future developments. Being open to environmental influence the system is more receptive to the need for change and development. More hostels are planned for the ACT as the population grows.
Having outlined the features of new style facilities which identify them as 'open' social systems, it is possible to focus on some of the pressures which may be applied to these facilities to reduce their 'openness'. In contrast to the traditional institution which, in several ways, can be seen to actively resist change and innovation, and to maintain its barriers against outside influence, the open system strives to retain maximum input from, and exchange with, the wider environment, i.e. 'openness'.

However, this striving may place considerable demands on those who operate within the system. The need to develop and maintain internal stability, and to clarify the boundaries of the system has been referred to. It can be suggested that tolerance for some degree of ambiguity in these areas will be required of staff who are going to function well within the 'open system' facility. In particular, direct-care staff will be required to tolerate considerable flexibility in the operations of the unit (for example, with residents returning home, bringing visitors to the unit, volunteers coming to work with residents). They will need to accept the continuing role of the resident's own family, in his or her progress, and so to avoid the negative stereotypes of residents' families which Morris (1969) and Klaber (1970) found typical of the staff of traditional institutions.

Although this aspect of staff-selection does not appear to have been explored, the ability to cognitively and emotionally cope with the particular demands of an open system would appear to be a major requirement of direct-care staff.
A further pressure on the facility to reduce its 'openness' may come from the wider organizational system, which may be more equipped to deal with the routinized operations of a traditional institution. Decentralization of the unit, with autonomy in major decision making, may make it easier for the facility to retain its 'openness' and integration with the wider community.

Figure 2 illustrates typical features of 'open' and 'closed' system type facilities. It is proposed that facilities could be ranged on a continuum from the 'ideal type' of the traditional institution to the new style facility integrated into the community in terms of their degree of 'openness'.

In the following section the physical and social/organizational sub-systems will be explored for their significance in determining patterns of care.
FIGURE 2

A CONTINUUM

<table>
<thead>
<tr>
<th>'Total' institution -</th>
<th>Small 'group home' -</th>
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<tr>
<td>typical features</td>
<td>typical features</td>
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<tr>
<td>'Closed system' features</td>
<td>'Open system' features</td>
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<td>Communication - mediated by indirect links</td>
<td>Communication - mediated by direct links</td>
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<td>Little opportunity for transfer of learning</td>
<td>Stimulating environment - much transfer of learning</td>
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<td>Limited access to 'normalizing' experiences</td>
<td>Access to 'normalizing' experiences in the community</td>
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<td>Social distance between staff and inmates</td>
<td>Interaction between staff and residents not limited to formal and specific activities</td>
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<tr>
<td>Facility tends to be larger</td>
<td>Facility tends to be smaller</td>
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<tr>
<td>Decision making autocratic and unilateral</td>
<td>Decision making democratic</td>
</tr>
<tr>
<td>Constraining demands of larger social organization e.g. hospital system</td>
<td>Fewer systematic constraints from larger social organization</td>
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</tbody>
</table>
Feature of 'timelessness'

Normal rhythm of the year e.g. holidays, birthdays

Head of unit more concerned with administrative and domestic activities

Head of unit more concerned with social and physical child care

Little opportunity for inmates to exercise choice, make decisions

Much opportunity for residents to exercise choice, make decisions
The Physical Sub-System

One striking feature in the literature on the preferred 'developmental' or 'training' model for residential care is its emphasis on the physical setting. For example, Bayes (1971) when writing of the traditional institution concluded ...

"Much of the behaviour which we see in institutions seems stimulated as much by the setting as by the characteristics of the inmates".

In this section reasons for this emphasis will be discussed, and the relationship between environment and behaviour in residential facilities for the intellectually handicapped will be explored. The common assumption of those who write about the planning and implementation of new facilities (Wolfensberger, 1969, Clements, 1970) is that the physical aspects of many institutions themselves provide momentum for the continuation of long-outmoded approaches to residential care. Wolfensberger refers to the 'role expectancies' that building designs and atmosphere impose upon prospective residents. He also suggests that buildings can be assessed in terms of their 'focus of convenience', that is, whether the building was designed primarily with the convenience of the residents, the community, the staff or the architect in mind. He adds that the design of institutional buildings generally reflects the attitudes of the larger society toward those who are being institutionalized.
Ittelson (1974) has written that...

"the power of an institution to compel certain behaviours is well known"

and notes that much of the empirical work in Environmental Psychology has taken place in institutions, especially psychiatric hospitals. He considers that...

"Physical form can reinforce the therapeutic or rehabilitative 'philosophy' of the institution, but when design lags behind newer approaches to institutional treatment it can make this philosophy harder to carry out".

Systematic empirical studies supporting a relationship between environment and behaviour in residential facilities for the intellectually handicapped are not, however, available. Bayes' work on *The Therapeutic Effect of Environment on Emotionally Disturbed and Mentally Subnormal Children* (Bayes, 1967) reviewed the state of existing information. He found no shortage of opinion, but many conflicting conclusions, and provided no specific data to back up his ideas.

Sociological studies such as Morris' *Put Away* (Morris, 1969) suggest possible relationships between environment and behaviour which should be investigated more systematically. Features of the physical
system which may be significant in prolonging the use of older philosophies of care are:-

A. **Age**

Surveys in both Britain and America have reported that the majority of the buildings in residential facilities for the intellectually handicapped are over 50 years old (1).

Morris observed ...

"the importance of the physical structure of any institution lies in the fact that not only does it help to create a 'psychological' atmosphere, which is as important for staff as for patients, but that it determines the ease or difficulty with which everyday tasks are performed".

Morris emphasised that while the range of conditions of the buildings varied widely in the hospitals surveyed, it appeared that ...

(1) (i) Pauline Morris' survey of 34 subnormality hospitals in Britain found that almost two-thirds were based upon a building, or nucleus of buildings, constructed before 1900.

(ii) The USA President's Committee on Mental Retardation reported that three quarters of the institutionalized retarded lived in buildings at least 50 years old.
"where physical conditions were poor they tended to have a negative effect on staff morale, not simply in terms of the overall atmosphere, but in consequence of the very considerable burdens placed on the nursing staff ..."

Morris (1969) stressed that the nursing staff in the majority of hospitals, however overcrowded, were fundamentally concerned about their patients as individuals, but their working conditions were such that their care and concern could only be expressed in ways more limited than they might otherwise desire. Routine and regimented ways of handling residents appeared to be related to poor physical conditions.

'Time-sampling' observations of staff behaviour in facilities of differing 'convenience' levels could be used to determine the effect of difficult physical conditions on allocation of time and priority for different activities.

It appears that the relationship between age of facility and desirable management practices is not a simple one, as differing patterns of social organisation and use of space can be observed in both old and new facilities. Roos (1970) observed that some new buildings differ but little in basic concept from old facilities.

Dybwad (1969) reported on his impressions of residential facilities in Australia. He was dismayed to see ...
"blue-prints for new institutional buildings which perpetuated the old model where the toilets and other sanitary facilities are given undue prominence, and where the over-use of tile throughout the building creates the impression of one huge bathroom".

The 'newness' of a facility may itself create a less homely atmosphere.

B. Size

In a review and analysis of the relationship between the size and effectiveness of mental institutions Cleland (1965) concluded that ...

"it may be possible that at some future date it will be proved, as is now assumed, that the big institution is the bad institution, but it has not been proven yet".

The majority of intellectually handicapped persons in residential care are in large institutions (1).

In fact, practically no studies have been made of small institutions, and in the absence of carefully controlled studies of

(1) The President's Committee on Mental Retardation reported that in the 1960s probably at least 95% of the retarded in residential care were in large institutions and 67% of state institutions had more than 500 beds.
different types and sizes of residential units, there is little empirical evidence about their relative effectiveness. Nevertheless, it has been argued (Morris, 1969, Ittelson et al, 1974) that the size of the facility is a critical factor. Arguments cited against the large facility are as follows:

(i) Out of sheer administrative necessity the large institution often finds it necessary to regiment inmates to an extent which the smaller institution considers undesirable. The dehumanizing practices of the 'total institution' are more likely to be found when large numbers of residents have to be cared for. The number of residents to be cared for relates, of course, to considerations of overcrowding, understaffing and consequent staff/resident ratios.

(ii) It is more difficult to achieve 'home-like' living units in large institutions, although, as Morris found, larger institutions frequently contain relatively smaller living units within them.

(iii) Grunewald (1974) has reported that severely handicapped individuals respond well to a 'small environment' where the number of interactions with other people is few, and is potentially stimulating rather than frustrating.
(iv) The large institution's requirement for land increases the likelihood of it being isolated from the community, with undesirable consequences for both residents and staff. Isolation may discourage the maintenance of residents' family ties, and make it harder to integrate residents into community activities.

Large institutions continue to be built (1).

The following arguments are typically advanced in favour of large-scale facilities:-

(a) The pressure of waiting lists of potential residents requires large numbers of beds to be made available. Kushlick (1974) found that the great majority of those on waiting lists for residential care in Britain were the severely and profoundly retarded who are likely to generate severe emotional and physical strain for their families, in the absence of community support facilities.

(1) A 500 bed institution is currently being built in Victoria. Roos (1970) reported that new 1,000 bed facilities were planned in New York and Texas. In September 1974 the present writer attended a conference at Kew Cottages, Victoria, in which the concept of the small residential facility was discussed only briefly and a clear preference was shown for the large institution.
(b) The large-scale facility is held to be more economical, because of the possibility of bulk purchasing, and the centralising of equipment and treatment facilities. However, Kushlick (1974) has found comparable running costs (1) for the residential care of intellectually handicapped children in small, new units and in a children's annexe of an existing hospital.

(c) Residents in large institutions are likely to obtain better specialist treatment facilities. This is related to the general inadequacy of alternative, community-based facilities, and the preference of funding departments for extending institutional facilities at the expense of alternatives. If no day services are available then families with a handicapped member at home may deny him services which he would get if admitted to an institution.

While descriptive studies of existing residential institutions are suggestive of a relationship between the size of the facility and

(1) Preliminary analysis of running costs of new units in Southampton, England, were about £29/week/child compared with about £28/child/week in a children's annexe of an existing hospital. Further evidence from the Wessex, England area suggested that to build a new 450 bed hospital would cost £2.5 million, whereas to build hostels containing the same number of beds would cost £1.3 million.
administrative and staff practices, there has been little systematic investigation of this. King, Raynes and Tizard's recent work (1971) on residential institutions for retarded children found that considerations of the overall size of the establishment, and the size of the child-care unit were less important in explaining differences in child management practices than the role activities of the person in charge of each unit. A complex relationship is suggested between size, social organization, training of staff, and resident care patterns.

C. Use of Space

Sluyter (1973) observed that ...

"The current trend to 'normalize' the institutional environment ... finds its major manifestations in space considerations. The Scandinavian model, for example ... suggests small, cottage-like living units close to the community, clearly contrary in concept to the United States' long tradition of large, multi-purpose facilities removed some distance from the mainstream. Certainly space is a critical variable in the institution, a fact which rarely escapes mention in relation to such things as long waiting lists, overcrowded conditions etc."

To date, direct research relating to the use of space in living environments for the intellectually handicapped is non-existent. Bayes' (1967) observations on the therapeutic use of space and privacy
are not supported by specific data, but they are referred to in both British and American literature (Roos, 1970), and have had considerable influence on the architectural planning of the ACT hostels.

In a subsequent work (Bayes and Franklin, 1971), Bayes has drawn attention to some of the complex problems of designing for the intellectually handicapped. As an example, he raises the following questions which are relevant to the usage of space in residential facilities:-

1. How can the sense of self and privacy of the intellectually handicapped be enhanced through the use of space?
   
   In persons with limited ability to respond to privacy cues this is especially difficult. Privacy, which seems desirable for the less seriously handicapped, may be less desirable for the profoundly handicapped bed-fast person who may benefit from maximum stimulation.

2. How does one balance the security of an unchanging setting with the variety and complexity that encourages exploration?

   This is particularly pertinent where facilities may house both the severely emotionally disturbed, and those who need constant stimulation.
Sluyter (1973) referred to the severely retarded, who may be semi-ambulatory, and in need of skilled nursing care, and argued that a ward may be a more suitable environment for this group than a private or double room. He also discussed the possible use of space as a reinforcer. As an example, when small bedroom areas are at a premium, a private room might be a reward for desired behaviour.

Although research relevant to the differing space needs and requirements of the intellectually handicapped is not available, Environmental Psychology has developed a research methodology which could be used for such research. A recent study by Wolfe (1975) on behaviour patterns in a children's psychiatric facility used a 'behavioural mapping' technique (1). A particular advantage of using such a technique with intellectually handicapped residents is that it does not rely on verbal descriptions of their reactions to the environment.

Wolfe's study focused on the children's use of bedroom areas. She observed that within the context of institutional life, where most of the day is spent in programmed activities, and in spaces shared by all of the children, the bedroom is the child's only personal space and commented ...

(1) 'Behavioural mapping' seeks to identify the uses of space as a factor in ongoing behaviour by making an accurate record of what activities take place where.
"It is in residential types of settings, whether in or out of hospitals, that issues of privacy, territoriality, and emotional dependence become especially salient".

Wolfe found that isolated, passive behaviour predominated in the private bedrooms and suggests that such 'withdrawal' behaviour may be necessary in children's institutions which provide many forced interactive situations and few alone situations (as Goffman found in the programmed day of the 'total institution'). Ittelson et al (1974) observed that institutional settings of all forms generally organise space to make it difficult for inmates to find a place to withdraw, usually in the interests of staff surveillance. Cleland and Dingman (1970) suggested that, in practice, residents at any level of retardation seek out areas of relative privacy.

Morris found in Britain's subnormality hospitals that there was a marked contrast between the space available to patients in their sleeping and daytime areas (1). Overcrowding, with consequential effects on staff and patients, was the most striking single feature observed by Morris' research team, and there were many wards where the beds were placed head to tail and there was barely room for the patients to stand between them.

(1) Over 40% of patients were sleeping in a single dormitory with 20 or more beds, while over half spent their days in rooms where the ratio of floor space to patients exceeded 20 square feet.
Osmond (1957) recommended that wards should be clustered around central areas, in preference to the conventional corridor layout of many institutions. Bayes makes use of Osmond's term 'sociopetal space' to describe the kind of environment (as in the family house) which by its arrangement and shape of rooms encourages the development of stable human relationships. This contrasts with the 'sociofugal' plan of an airport or hotel, which discourages the formation of such relationships.

**Staff use of space**

King, Raynes, and Tizard (1971) related the use of physically separate areas of accommodation by residents and staff to the 'social distance' between them. It was suggested, for example, that where separate lounge areas and dining rooms had been created this had an effect upon role relationships by creating additional barriers to interaction and meaningful relationships.

In summary, although the role of space usage in environments for the intellectually handicapped is little understood, it does appear to enter importantly into the daily lives of both residents and staff, and should be investigated further.

**D. Equipment and amenities**

An important part of the physical system of residential facilities is the equipment and amenities which are provided for the use of residents. It is suggested that if these are inadequate or not freely available to residents this will result in differences in staff
practices, and hence in the residents' experience.

As an example, Morris found a disparity between the supply of items which entertained the patients with the minimum of supervision i.e. radio and television, and the shortage of chairs. Toys, games and books were usually kept under lock and key, or allowed to be used only by certain patients. The inadequate supply of personal lockers meant that patients were encouraged to keep few personal possessions, although Carroll (1969) has reported on a study relating to the significance of possessions to intellectually handicapped residents in institutions. She found that possessions signifying status played an important role in the lives of the residents observed, although few of them had many.

In summary, the physical sub-system of residential facilities appears to be related to staff practices and staff-resident interactions in important, but as yet little understood, ways. It provides the 'backdrop' to the daily lives of both residents and staff. In terms of the residents' experience facilities have been found to differ in the amount of stimulation, privacy and 'normalizing' experiences provided by the physical setting. For the staff, daily tasks can be made more, or less, difficult by the physical setting, and this is likely to affect their interactions with residents.

In the following section the social/organizational sub-system of facilities will be explored as this also appears to differ in
significant ways in different types of facilities, and to affect relationships between staff and residents, and amongst the residents themselves.
The Social/Organizational System

Residential facilities have been found to differ significantly in their organizational structures. In his review of research findings on "The upbringing of other people's children" Tizard (1974a) concluded ...

"In their different ways the studies have all shown both that particular aspects of the organizational structure of the unit have profound effects upon the manner in which the staff interact with each other, and towards the children, and also that these characteristic patterns of staff behaviour have profound consequences for the children themselves".

Tizard referred to such studies as those of Ullmann (1967) and Morris (1969) which concluded that highly centralized, hierarchical organizational structures tend to be associated with routinized, impersonal patterns of care, while the more decentralized structures, in which daily decisions are made by those in closer contact with the residents, have more individualized care practices.

Recent studies of residential facilities have explored the ways in which such differences in organizational structure became translated into staff/resident interactions. For example, Raynes and King (1974) observed contrasting patterns of child management in hospital, and hostel or voluntary home units caring for intellectually
handicapped children of comparable handicaps. They related these differences to the fact that the hospitals were more hierarchical, departmentalized and centralized than the other facilities, and tended to be 'task' rather than 'child' oriented. It was observed, for example, that the role activities of the heads of the hostel units involved a much higher proportion of social and physical child care and supervision of the children than did the role activities of their counterparts in hospitals (who did proportionately more activities of an administrative or domestic kind).

Mercer (1965) related observed differences in management practices to differences in the social systems of the hospital and non-hospital facilities. She concluded ...

"a social system composed of persons playing the roles of patients, doctors and nurses is an entirely different social system than one in which the primary roles are child and surrogate parent".

The social system of the hospital causes residents to play the role of 'patient' and ...

"the staff must play their reciprocal roles of disinterested medical professionals concerned mainly with the patient's physical well-being".
In this way the social system defines the roles of the staff and consequently affects their interactions with the residents.

Raynes and King found that there was much more verbal contact between residents and staff in the hostels than in the hospitals. Hostel staff were observed to play with, and physically handle, the children more than hospital staff. Mealtimes in the hostels were observed to be more of a social occasion than in the hospital setting, and there was less emphasis on routines.

It can be seen that the social system within which staff play their roles rewards the kind of behaviour which is considered appropriate to those roles. Thus nurses in the subnormality hospitals learned to conform to the traditional emphasis on cleanliness, tidiness and orderly behaviour, although their training had emphasised the 'therapeutic' aspects of their role (Morris, 1969).

The effectiveness of in-service training programmes for staff is likely to be limited by this aspect of the social/organizational system. Assuming that staff are subtly reinforced for non-interaction tasks, as found by Ullmann (1967), training with an emphasis on skills in, for example, increasing residents' independence are likely to produce little change in staff behaviour. Only a change in the reward system, through appropriate changes in the social organization, would be likely to produce the desired results.
Watson (1970) has written of the need to devise an appropriate reward system for direct care staff who are trained to implement behaviour modification programmes. A major source of reward for most adult employees is the attention and approval of their supervisors. It is obvious that there is little point in training direct care staff to implement such programmes unless their supervisors also regard them as worthwhile.

A social system perspective helps to interpret the findings of Thormahlen (1965) that staff-resident ratios appeared to have little effect on the quality of care actually received by the children in a hospital setting. He observed that an increase in personnel tended to produce more dependent children, since there were then enough staff members to assume more responsibilities and do more tasks for the children. In addition, increased staffing tended to accentuate role stratification, and this resulted in the staff remaining in the kitchen or clothing room, rather than being in a position to interact with the children. The extra staff fitted themselves into the social system of the hospital setting, and conformed to the behaviour patterns expected of them.

Other differences in the children's daily lives which can be related to the social system of the facility were observed by King and Raynes. For example, hospital children were more frequently moved from ward to ward, and nursing staff were 'rotated' to give them varied experience. These movements would tend to make it difficult for the
children to establish and maintain stable emotional ties with other children and staff. In the hospital system major decisions about food, clothing, holidays and schooling were made by unknown people who did not work on the wards. In the hostels the housemother had sole responsibility for such decisions.

Holland (1973) attempted to test the proposition that decentralizing an organization's structure leads to more individually oriented care. He studied a large public institution for the intellectually handicapped that was undergoing an organizational decentralization. He concluded that decentralization influenced staff toward a greater individual orientation in their management practices. This influence appeared to operate indirectly by means of increasing staff participation in decision making and in the development of training programmes for individual residents. Decentralization also led to an increase in the percentage of residents leaving the institution each day, and the frequency of case reviews. Holland found that the increased emphasis on individually tailored care was apparent with residents of lower, as well as higher I.Q. Holland's findings can be compared with those of Street, Vintner and Perrow (1966) who looked at institutions for juvenile delinquents. They concluded that the treatment programmes required for rehabilitation required a high degree of organizational flexibility. This could be best achieved by considerable decentralization of decision making.

A cautionary note on decentralization is suggested by Morris' investigation of small voluntary homes and hostels for the intellectually
handicapped. In these facilities the head of the unit had virtually complete autonomy, and there appeared to be an unquestioning acceptance of this situation by other staff members. In general life in the homes and hostels appeared to be more comfortable and less regimented than in the hospital system, and residents had a closer personal relationship with the staff. However, the small facilities had little contact with professional staff, or with current developments in, for example, the field of rehabilitation for the intellectually handicapped. Because of the limited amount of external supervision, and lack of diversity within the staff structure, the personality of the person in charge assumed great importance in determining the goals of the particular unit. There was less chance that personality factors would be 'neutralized' than in the more complex and bureaucratic hospital structure (see also Appendix I).

Raynes and King also noted the lack of a regular system of training or inspection in the homes and hostels in their study. They considered that the lack of systematic constraint from a wider social organization accounted for the greater variety of management patterns observed in the smaller units.

Relationships between staff members

This aspect of the social system has been found to differ between residential facilities. Morris (1969) reported a lack of contact and communication between the direct care and other staff in the rigid hierarchy of the subnormality hospitals. The hierarchical
structure of the hospital reinforced the 'social distance' between various levels of staff, and contributed to the isolation, and consequent low morale of the lowest ranks of staff. Farber (1968) also noted difficulties in communication between aides and professional staff in an institutional setting. He related this to differences in values and treatment orientation of the two groups.

Raynes and King found that role specialization and status distinctions were much more obvious in the hospitals they observed than in the homes or hostels, where there was much more informal communication among staff of various grades. The lack of systematic training or inspection of staff in the non-hospital settings, is likely to lead to less awareness of status distinctions.

The resident social system

The social organization of the intellectually handicapped residents of institutions has been little investigated. Edgerton (1963) found differences in the social organization of residents within an institution which related to their levels of activity. He found that delinquent, mildly handicapped residents modelled themselves on the ideas and values of the delinquent society with which they were familiar, although they had never actually been members of that society. Formal norms and sanctions were organized by this group according to the set of behaviours which they felt to be appropriate to the situation in which they found themselves. (For example, there were taboos to signify the dating relationships between members of the opposite sex, and gifts and ornaments were used to call attention to status relationships).
An elite group within the institution were sometimes asked to keep order among the other residents. Dentler and Mackler (1961) also noted how ward attendants nominated the most able residents as work helpers, but were themselves attracted to the smallest and least able. They thereby established a system on the wards of rewarding the most able residents while fostering a continued dependency among the least able. A recent study by Dailey, Allen, Chinsky and Veit (1974) reported that residents perceived as likeable, attractive and intellectually competent experienced a greater number of positive and social interactions, as well as receiving a greater amount of attention from aides. As the average resident in their study was engaged in interaction with staff in fewer than one per cent of the intervals in which he was observed, it can be seen that the less favoured group were largely ignored.

Edgerton (1963) observed that the more severely handicapped residents also had a social organization, but that it was less formally integrated. Even the very severely handicapped had a kind of social organization in the sense that by exhibiting deviant behaviour they could control factors in their environment such as who fed them, and what kinds of elementary privileges they were given.

Social mobility

Goffman observed that inmates of the 'total institution' had no opportunity for social mobility within the status system of the institution. Rigid distinctions existed between the staff and
inmate cultures. It can be argued that one of the advantages of new-style residential facilities for the intellectually handicapped is that they provide opportunities for social mobility (particularly for the mildly handicapped) through the provision of integrated living in the community, and for some, the possibility of semi or full independence as adults.

A systems approach - implications for research

The aim of this elaboration of a 'systems' approach has been to provide a theoretical framework which can be used:

(i) to integrate existing literature on residential facilities for the intellectually handicapped by re-interpreting studies in 'systems' terms.
(ii) to extract relevant dimensions in the total environment of facilities which can be used to further investigate the effects of different types of facilities on outcome, i.e. resident growth and development.

The inter-dependence of the sub-systems of the total social systems of facilities has been emphasized. This has served to highlight both the great complexity of this topic, and the need to remain alert to possible inter-relationships amongst variables.

In the following section of the essay the existing research literature which attempts to relate types of facilities to their effects
on residents will be examined. It will be seen that, because the
new model of residential facilities has not yet been widely
implemented, and has been little investigated, the majority of
research studies have been conducted in traditional facilities of
the 'closed-system' type. It should be emphasized that this model
represents one end of a continuum, and that the most important task is
to isolate the particular features of the traditional facility which
appear to have the reported effects on residents.
SECTION 2

RESEARCH AND THE RESIDENTIAL FACILITY

Introduction

Current moves to evaluate residential facilities for the intellectually handicapped can be seen primarily as a response to two related needs:-

(i) the need to improve the quality of residential care for the intellectually handicapped in response to the growing awareness that some, but not all, facilities have negative effects on residents.

(ii) the need to provide evidence of a 'cost benefit' nature in response to demands for the 'accountability' of Government funded services. This consideration has prompted the research efforts of Kushlick (1974) and the development of systems of evaluation. Behavioural scientists are likely to be employed increasingly in evaluating the effectiveness of particular facilities and programmes.

These considerations are likely to provide an impetus to research in this area, and also to require a change of emphasis. Until recently the majority of research studies in residential facilities have focused on the clinical use of instruments designed to measure resident functioning. Changes in functioning over time have been noted and have been reported as indicators of the
effects of institutional living on resident growth and development. With the current moves towards new models of residential facilities the major research task becomes that of evaluating, through careful empirical research, the relative effects of the different types of facilities. In particular, attention should be focused on the new-style facilities if the current enthusiasm for this model is to be sustained by evidence of its greater effectiveness. The complexity of this task is suggested by the many dimensions of the institutional environment outlined in the 'systems approach' to the residential facility.

In general, as can be seen from the first section of this essay, the literature on residential facilities for the intellectually handicapped could be described as strong on descriptive studies (primarily sociological studies providing documentary evidence of the continued existence of 'total institutions'), but weak on critical research studies.

In this section of the essay it is proposed to explore some of the complexities of research work in this area. Studies which have focused on changes in resident functioning will be briefly reviewed, and the limitations of these studies discussed. This will be followed by an outline of some recent developments in research methodology, and a general discussion of the major difficulties associated with the evaluation of 'effectiveness' or 'quality of care' in residential facilities.
Studies of resident functioning

Arguments against the traditional-style institution for the intellectually handicapped frequently include reference to a number of research studies which have related 'institutionalization' to the residents' performance on a number of tasks thought to reflect important cognitive processes. Studies (reviewed by Balla, Butterfield and Zigler, 1974) have measured the residents' quality of language behaviour, level of abstraction on vocabulary tests, ability to learn a discrimination and to form a learning set. Institutionalized retarded children were found to suffer from a decrement in performance on tasks designed to test these areas of cognitive functioning. It has also been found (Stedman and Eichorn, 1964, Carr, 1974) that children already handicapped by 'organic' brain impairment, such as in Down's syndrome, appear to make less progress in institutions than they do at home. Yando and Zigler (1971) reported that institutionalized children showed less curiosity than those living at home. The authors related this finding to the institutional emphasis on conformity, and to a highly structured routine in which exploration and curiosity are often associated with failure or negative consequences.

Other studies, however, (Yando and Zigler, 1971, Clarke and Clarke, 1954, Zigler, Balla and Butterfield, 1968) have suggested that institutionalization may sometimes have beneficial effects on intellectually handicapped residents, such as increasing the handicapped child's autonomy in problem solving. Increases in the I.Q. scores of
mildly handicapped children have been reported when the residential environment was reasonably stimulating and when the resident's home background had been poor (Clarke and Clarke, 1954). Zigler (Zigler, Balla and Butterfield, 1968) has conducted several studies of handicapped children which have related their pre-institutional histories to the later effects of residential living.

Zigler has related institutionalized children's performance on I.Q. measures to motivational factors, particularly the child's motivation to obtain social reinforcement in the testing situation. He found that the child's desire to interact with the adult tester increased with the length of time spent in the institution. For those with a history of social deprivation the desire to be correct in the testing situation competed with the desire to increase social interaction with the tester. Zigler therefore concluded that the widely reported I.Q. changes of intellectually handicapped children following institutionalization are due to motivational factors that affect I.Q. performance, rather than to changes in formal cognitive functioning. It appears that there is a complex interaction between the psychological features of a particular institution and the effects of the child's pre-institutional history. Zigler has produced evidence which suggests that the greater the history of social deprivation, the less damaging is the institutional effect on the child (Zigler, Balla and Butterfield, 1968).

The importance of the length of time spent in the institutional
setting as a variable has also been noted by Kraus and Judd (1974). Kraus and Judd found that change in verbal but not in performance I.Q. was related to length of institutionalization. They have suggested that there is a curvilinear relationship between length of stay and effects on children's verbal development. Kraus and Judd noted that most studies which have reported 'gain' in verbal skills of institutionalized children have re-tested them after relatively short periods in the institution. They have hypothesized that the initial 25-30 months in the institutional setting may produce an accelerating recovery from past experiences rather than a response to the present environment. If institutionalization extends beyond 55 to 60 months there is an apparent arrest in verbal development, because the children have then exhausted the resources of the institutional environment which could stimulate such development.

There appears to be general agreement that it is verbal development which is the area most likely to be affected adversely by extended institutionalization. Shakespeare (1975) has suggested that children who live at home receive more active coaching in speech and more persuasion to use words than those in institutions. It is likely that they also benefit from being with siblings and friends who are of similar age, but whose language development is more advanced. A study by Tizard (1971) found that merely increasing the staff/child ratio in residential nurseries did not by itself lead to better language performance, since the adults were more likely to spend more time talking to each other than with the children. Tizard saw this as evidence that
it is not institutionalization as such which affects language
development, but the type of child care practices to which the child
is exposed. Although there appears to be no experimental data available
on this point, it could be hypothesized (in the terms of learning theory)
that the hospital environment of the traditional institution tends to
reinforce non-verbal rather than verbal behaviour. Naturalistic
observation methods could be used to test this hypothesis. These methods
are discussed in 'Developments in research methodology' (page 70).

Having observed a decline in verbal skills in non-handicapped
institutionalized children over time Tizard and Rees (1975) concluded
that institutional 'retardation' when it occurs, derives from the same
poverty of experience as other environmentally produced retardation.
These authors noted the importance of good child/staff ratios, a
generous provision of toys, books and outings, and an exposure to an
increasing variety of stimulation (especially verbal) as the children
grow.

Future research in the area of verbal development in hand-
icapped children in residential care should attempt to identify the
critical characteristics in any given situation, and proceed from
there to conduct experiments in which these independent variables are
systematically manipulated, so that the effects of such manipulations
on language can be examined.
The reversibility of ill-effects

Two widely quoted studies have suggested the possibility of considerable reversal of cognitive ill-effects related to living in 'poor' institutional settings:

1. Skeels' longitudinal studies begun in 1937 (Skeels, 1966) found a marked rise in I.Q. scores of children transferred from a poorly equipped, overcrowded orphanage to an institution for the intellectually handicapped where more personal care was possible. Rutter (1972) has suggested that Skeels' studies show the possibility of considerable reversal of cognitive ill-effects given two conditions:

(a) the change of environment is complete (the children were transferred from a deprived and unstimulating environment to one in which they received intensive 'mothering' and individual attention from attendants and older residents)

(b) the change of environment occurs in infancy (the mean age of transfer in Skeels' studies was 19.4 months).

2. Tizard (1964) investigated a group of severely handicapped children who were transferred from a large institution to a residence characterized by small family-type living arrangements. Measures of the children's verbal mental age over a two year period showed that it had increased by an average of ten months whilst they had been in smaller groups, whereas the average increase in a control group still in the large institution was four months.
Tizard's study is widely quoted in support of the preference for the new model of small residential facilities for the intellectually handicapped, and is one of the few well controlled studies in the literature.

With the exception of Skeels' and Tizard's studies, most research into the effects of institutionalization on residents has been conducted within traditional style institutions which have usually combined a number of potentially adverse features (for example, multiple caretaking, poor stimulation and poor staff/child ratios). Little progress has been made in isolating the particular features of the institutional environment which are likely to have an adverse effect on resident development. Variables which appear to be significant, and which should be investigated further in studies using well matched control groups are:-

(i) The amount of stimulation (especially verbal) which is available in the residential environment. This has rarely been described objectively. Thormahlen (1965) was the first to systematically observe staff/resident interactions, and he found that less than 2 per cent of the attendants' time was spent training children, and that 36 per cent of the time attendants encouraged dependent behaviour among the residents. Dailey, Allen, Chinsky and Veit's recent study (1974) has underlined the fact that the average resident in a large institution is likely to receive very little verbal stimulation from the staff.
(ii) The child's pre-institutional experience of 'social deprivation'. Zigler has established this as one reason why the same institution may have different effects on different residents.

(iii) The length of time spent in the institutional setting.

Having reviewed existing studies of the effects of institutionalization on intellectually handicapped children Balla, Butterfield and Zigler (1974) concluded:

"More caution is in order before one can speak of the effects of institutionalization. Until workers discover the particular social-psychological phenomena producing the effects which are common to all institutions it is difficult to assert that institutionalization will have some common effect, regardless of the particular institution in which the retarded child finds himself".

These authors discussed the inadequacies of previous research in this area and called for future research to include direct observational studies of the quality of the social interactions between the child caretakers of an institution and its residents, and/or attitude surveys of an institution's caretakers. In the following section the inadequacies of previous research which Balla, Butterfield and Zigler referred to will be elaborated. It will be
seen that developments in research methodology have largely been in the area of direct observational studies of what actually happens within residential facilities in resident/staff interactions. This reflects a growing awareness that the type of behavioural management practised by staff, and experienced by residents, may be a decisive factor in whether facilities have positive or negative effects on residents.

**Inadequacies of previous research**

The apparent lack of progress in isolating relevant variables and providing evidence of the differential effects (if any) of different types of residential facility can be related to the general inadequacies of previous research in this area. Notable inadequacies are:-

1. The lack of cross-institutional studies. Few attempts have been made to cross-validate studies in different institutional environments. This was partly a result of the assumption that the intellectually handicapped residents would behave in similar ways regardless of their environment.

2. The focus of research on areas for which tests or scales already exist (for example, the measurement of changes in I.Q. or educational attainments). As a result, attention has been focused primarily on the residents rather than on the institutional environment, and exploration of other indicators of institutional quality has been sparse.
3. The use of very indirect measures. For example, attitude questionnaires have been widely used with the staff of facilities rather than direct observations of their behaviour being made, despite the evidence that there may be little correlation between these two measures (Klaber, 1970).

4. The lack of longitudinal studies. With the exception of studies of I.Q. change, few longitudinal studies of institutionalized handicapped children have been conducted. One major difficulty associated with such studies has been the lack of adequate data concerning relevant aspects of the resident's life history, and development at the time of admission to the facility. Direct care staff have generally been unaware of the significance of such data for research purposes.

5. Related to the lack of adequate pre-institutional data is the problem that handicapped children who are institutionalized may be a pre-selected group. Shakespeare (1975) has noted evidence that those who are placed in institutions may be of lower intelligence and have exhibited more behaviour problems in their own homes. It may be that institutions have been called upon to deal with the more difficult children because only these tend to be admitted from 'urgent' waiting lists. What is needed in future studies is more careful matching of as many characteristics as possible between the groups studied in institutions and control groups remaining at home.
Developments in research methodology

1. Observations of staff/resident interactions

Since Thormahlen's 1965 study there have been an increasing number of direct observational studies of staff/resident interactions. The objective recording of what direct care staff actually do in their dealings with residents has developed partly as a response to dissatisfaction with indirect, questionnaire-type studies of staff attitudes. Attempts to differentiate between employees of different facilities have generally used self report questionnaires, which consist of statements reflecting general attitudinal 'sets' towards the intellectually handicapped. However, as reviewed by Klaber (1970), this type of assessment is subject to interpretative difficulties caused by 'social desirability' (1) and other response biases. Klaber found that although the behaviour of attendants (measured by direct observation of their activities) was markedly different in six institutions studied, all attendants gave similar, socially desirable, responses on questionnaire instruments.

Other studies have attempted to differentiate staff in terms of their role perceptions. It was found, for example, by Shotwell,

(1) 'Social desirability' refers to the tendency to reply 'agree' to items on questionnaires that the respondent believes reflect socially desirable attitudes, so as to show himself in a better light.
Dingman and Tarjan (1960), and Butterfield, Barnett and Bensberg (1968) that attendants and professional workers in institutions for the intellectually handicapped differed in their estimates of the relative importance of various activities associated with their jobs. Professional staff members were found to be more 'patient-oriented' in their choice of important activities than either aides or supervisors. A modified form of the forced-choice technique used in these studies was used with the staff of Canberra's hostels to explore their ranking of job-related activities (see Appendix I). Since this technique may also be subject to a 'socially desirable' bias, it would seem necessary to check such a ranking against direct observations of actual staff behaviour throughout the day.

The reported discrepancies between verbally expressed attitudes towards the intellectually handicapped and observed on-the-job behaviour in residential facilities would appear to cast doubt on the use of attitude questionnaires for staff selection purposes. Very little research appears to have been undertaken in this area, and discussions of staff recruitment for residential facilities generally focus on the factors (e.g. low pay, long hours and isolation) which have made this work generally unattractive (Farber, 1968, Klaber, 1970). The need to develop adequate criteria for staff selection and for evaluating job performance becomes more urgent as alternatives to the 'Medical Model' of residential care appear to require a new category of residential care worker, who is less likely to have nurse training as a basic qualification. The complexity of this task is related to
the general complexity of attempting to evaluate 'effectiveness' in caring for intellectually handicapped children.

2. The use of naturalistic observation methods

Tizard (1974b) has described recent studies of residential facilities using direct observational measures of management practices and of staff/resident interactions as bringing something new and important into institutional studies. He has stressed, however, that such measures need further refinement so that the institutional environment can be measured in a more meaningful way. The current research of Whatmore, Durward and Kushlick (1975) attempts to explore staff/resident interactions using the sophisticated methodology for collecting, analysing and interpreting data developed by Bijou (Bijou et al, 1969) for the observation of young children in natural settings. Observations of staff/resident interactions are made throughout the day, and staff and resident behaviour is classified in categories which can be used for cross-facility comparisons. In developing their observation codes these authors have used the conceptual framework of 'operant conditioning theory' (1).

(1) 'Operant conditioning theory' states that voluntary behaviour is influenced by its consequences and that the most effective way to generate or modify behaviour and maintain it is to make it contingent on some form of reward or 'reinforcement'. Behaviour modification programmes, based on reinforcement schedules, are being used increasingly in residential facilities for the intellectually handicapped (see for example Watson, 1970).
Preliminary observations using the observation codes were made in one of Canberra's hostels for the intellectually handicapped. (The codes are elaborated and the observations discussed in Appendix 2).

Although the method of naturalistic observation has the advantage of avoiding the possible 'response-biases' of questionnaire methods, and also provides quantifiable data for inter-facility comparisons, the presence of an observer may affect the interactions of staff and residents. This effect becomes less as the observer becomes a less intrusive figure, but may still affect the validity of the data to an unknown extent.

Whatmore, Durward and Kushlick discuss the concept of 'quality of residential care' and hypothesize that the quality is 'high' in a particular facility if a high proportion of resident's appropriate, and a low proportion of their neutral, inappropriate and disruptive behaviour (see Appendix 2 for elaboration of these categories) is followed by staff contact. The converse follows in facilities providing 'low' quality of care. These authors have not yet published results of their research, but have drawn attention to some of the problems associated with measuring the quality of residential care.

They refer to the child management scale developed by King, Raynes and Tizard (1971). This scale is being used increasingly to measure the management of children in different residential settings
(Balla, Butterfield and Zigler, 1974, Tizard, 1974a) and appears to have broken new ground in research into the care of children in institutions.

3. **King, Raynes and Tizard's scale of child management practices**

Results from King, Raynes and Tizard's survey of residential facilities have been referred to earlier in this essay ('The Social/Organizational System'). Differences observed between patterns of child management in hospital, and hostel or voluntary home units caring for intellectually handicapped children were discussed in terms of the social system and organizational structure differences of these facilities.

Methodologically, these authors developed their 'child-management scale' to obtain systematic 'hard data' concerning the amount and type of interaction between staff and children.

Standard questions are asked relating to the management of children in residential settings (see Appendix 3 for examples of these questions). The questions are supplemented by detailed observations of daily routines in the facilities using a time-sampling technique.

King, Raynes and Tizard's studies have been crucial in establishing the significance of the social organization of facilities, and of the training of the unit heads, for determining child management
practices. They have not attempted to go further and evaluate the effectiveness of the 'child orientated' practices which were observed more frequently in the hostels than in the hospitals studied. The authors have argued that they are prepared to defend 'child orientated' practices, without measures of effectiveness, simply on moral and social grounds. Their 'affirmation of faith' is that ...

"In as much as ... children are treated in a manner which is impersonal and institutional, not only do they suffer, but the community also loses something of its respect for human dignity and human happiness". (King, Raynes and Tizard, 1971).

Whatmore, Durward and Kushlick, who are attempting to evaluate the effectiveness of staff practices, argue that although the 'child management scale' measures important features of the residential environment (i.e. the extent to which a facility avoids negative practices and might appear 'homely' to an observer), it appears to lack sensitivity to staff practices directly affecting individual residents. For example, the scale questions do not probe long periods of the day when interactions between children and staff may or may not take place.

The present writer would suggest that the combined use of King, Raynes and Tizard's scale, and direct observations of resident/
staff interactions using Whatmore, Durward and Kushlick's categories would enable detailed comparison of facilities to be made on the following dimensions:

(i) The extent to which facilities avoid such negative practices as 'depersonalization', 'block treatment', 'rigidity of routine', and 'social distance'. By using the operational definitions of the child management scale such abstract terms as 'good, homely atmosphere' could be quantified and facilities could be compared in a meaningful way.

(ii) The number of learning opportunities which are available throughout the day.

Whatmore, Durward and Kushlick have argued that the provision of many learning opportunities, with appropriate responses from staff to adaptive behaviour, is a major component of the 'quality of care' of a residential facility. Klaber (1970) wrote that the development of greater self sufficiency, through programmes encouraging residents to achieve greater self-care skills, is a vital aim of any facility for the intellectually handicapped. Systematic observation of the learning opportunities available to residents would make it possible to quantify the extent to which the frequently expressed goal of residential facilities - 'maximizing the potential of the residents', is in fact, translated into day to day staff practices.
Problems typically associated with research in residential facilities

(i) The lack of clearly stated objectives

Although the authors quoted above have attempted to specify objectives of care for intellectually handicapped children in residential facilities, aims are typically stated in terms of unexceptionable generality, for example, 'maximizing residents' potential', 'providing a homely atmosphere'.

One advantage of applying a 'systems' framework to the study of residential facilities is that it emphasizes the need to specify the goals, or objectives, of residential care. Until those who plan and manage facilities are able to be more explicit about what they are actually aiming to achieve for their residents it is hard to see how much progress can be made in evaluating the relative 'effectiveness' of different types of facilities. The lack of clearly stated objectives may be a major reason why research in this area has uncovered many potentially significant differences between facilities, but has only recently attempted to relate these differences to 'outcome' i.e. resident growth and development. This appears to be a problem common to all people-changing organizations (Street, Vintner and Perrow, 1966).

(ii) The need for co-operation

Research workers and the management and direct-care staff of the facilities need to evolve an active partnership. Baumeister (1970) interviewed institutional superintendents and found that they
considered research to be the least important contribution of a psychologist. Typically direct care staff have seen research activities as involving extra duties for themselves without gaining any satisfaction from their contribution. Tizard (1974a) observed that the research worker is likely to wish to influence policy, or to suggest alternative ways of doing things, but that he cannot as a research worker direct policy. Moreover, if his task is to evaluate the effectiveness of different policies he must remain uncommitted in support of any one of them.

It should also be noted that, whereas the traditional institution had a 'captive population' of research subjects with few links with the outside world, the new style facility attempts to maintain close contact with residents' families. It will, therefore, be necessary to obtain parents' permission for their children to participate in any research project.

(iii) The complexity of the research subject

Since research studies in residential facilities have broadened their scope from a consideration of resident functioning on standardized tests to the wider environment of the facility, the multi-dimensional and highly complex nature of residential care has become apparent. The first section of this essay focused on major dimensions of the residential facility. Sets of variables which are inter-related and appear to be most significant are:-
(a) Features of the formal organizational and social system structures of different types of facilities
(b) The child-care practices employed by staff in different facilities
(c) The personality factors, age, ability level and pre-institutional experience of residents.

These dimensions have been explored descriptively in the 'systems' approach of this essay. In attempting to investigate the inter-relationships between the many variables involved, research hypotheses are likely to be far from simple. Whatmore, Durward and Kushlick (1975) have discussed the major problems which they are encountering in attempting to measure the 'quality of residential care'. The initial problem has been to define and measure the dependent variable - the 'quality of care' - against which the effects of changing various independent variables could be evaluated. Other methodological problems are the need to deal with large, heterogenous groups of subjects (the residents of different facilities), and the lack of control over independent variables (for example, throughout the day in one residential facility there may be many changes of staff, visitors may arrive etc).

These are complex research problems which have resulted in relatively few definite findings. However, it can be suggested that certain trends can be discerned in the evidence so far available and directions for future research in comparative studies of different
types of facilities are clear.

The main task remains that of separating out potentially adverse factors in the residential environment (e.g. multiple caretaking, poor stimulation and poor staff/child ratios) which have typically been combined in studies of traditional institutions.

There would seem to be little point in future research studies comparing treatments which differ greatly in quality (e.g. poorly staffed, grossly overcrowded institutions of one type with generously staffed, well-housed facilities of another) if the aim is to explore differences in the type of facility rather than in, for example, staff/resident ratios.

Methodologically there is a need for improvement in 'technology'. As Tizard (1974a) has observed, it is now possible to measure rather crudely such variables as adult/child interactions, 'stimulation', and qualities of organizational structure in different facilities. What is needed is a further refinement of these measures, and greater sophistication in the use of naturalistic observation techniques, together with operational definitions of such variables as 'quality of care'.

Tizard, who has himself made a major contribution to research activity in this area, considers that, despite the great complexities involved, the evaluation of residential services for the intellectually
handicapped offers one of the most fruitful avenues for social research. He also emphasizes that research workers have a responsibility to communicate their findings to those who are involved in the practical problems of planning and running residential facilities, as they are likely to be of great importance in affecting policy making.

The justification for further research in this area has been argued in economic terms (large institutions are expensive and administrators require objective, reliable and valid information in order to monitor the effects of allocating resources to residential services). For many of those who have become personally involved in evaluating services for the intellectually handicapped (for example, Blatt and Kaplan, 1966, Wolfensberger, 1969, Morris, 1969) there appears to be a moral justification also to ensure that the inadequacies of the traditional institution are exposed, and avoided in future services.
CONCLUSION

To conclude the essay, an attempt is made to summarize the present state of research knowledge and activity relating to residential facilities for the intellectually handicapped. Throughout the essay it has been emphasized that there is an urgent need for more, and better, research work in residential facilities. The former preoccupation with psychometric evaluations which focused on individual residents led to a serious neglect of questions raised by the accumulating evidence that the total environment of the facility contributes greatly to residents' growth and development, and that some facilities are less detrimental than others.

Because of the methodological inadequacies of previous research studies, the great complexity of the subject, and the fact that the major questions relating to the 'quality of care' and 'effectiveness' of different types of facility remain unanswered, it may appear over-optimistic to write of progress in this area. Nevertheless Tizard's appraisal of research findings on "The upbringing of other people's children" (Tizard 1974b) suggests that a cautious optimism is justified. He concluded that it was now possible to measure, in an imperfect but meaningful way, such variables in the residential environment as adult/child interactions, 'stimulation', qualities of organizational structure and child management practices which may have specific consequences for the residents' health and development.
He commented ... 

"I do not want to oversell what has been accomplished, but do think that it brings something new and important into institutional studies".

In general terms progress has been made in going beyond 'global' descriptions of facilities, and 'gross' observations of what happens in the daily lives of residents and staff. It is now possible to focus on dimensions which appear to be relevant to effects on resident growth and development through the use of a theoretical framework such as the 'systems' approach elaborated in this essay. Research studies to date (notably those of King, Raynes and Tizard) have demonstrated that those factors usually thought to be responsible for differences in the quality of care may not in fact be the significant ones (for example, the size of unit appears to be less important than its social organization and the nature of staff training).

Naturalistic observation methods are likely to provide increasingly sophisticated data on the interactions between residents and staff, and evaluation instruments such as the 'Scale of Child Management Practices' should make it possible for administrators to ensure that they, at least, avoid the dehumanizing practices of 'block treatment' and 'depersonalization' in their facilities.
Other studies have demonstrated the possibility of reversing the ill-effects which young children may have suffered in 'poor' institutional environments, and have highlighted the need to provide adequate stimulation and variety of experiences. Findings from studies which have attempted to link institutionalization with changes in resident functioning are equivocal, and it is now apparent that the popular generalization that institutions 'per se' are bad, and that provisions of any other kind are preferable, is an over-simplification.

Despite some progress in the conceptualization of differences between types of facilities there has been a notable lack of progress towards answering many of the questions likely to be asked by those who plan and administer residential facilities for the intellectually handicapped. The questions posed in the introduction to the essay (page 7) can be answered only partially, and the search for more complete answers which do justice to the full complexity of the variables involved continues. It is to be hoped that the present interest in residential care and its effects on those who are its recipients will be sustained by the granting of sufficient funds for research activity. Services for the intellectually handicapped, both residential and non-residential, have frequently been referred to as the 'Cinderella' of the Mental Health Services, and funding has typically been inadequate. Increased research activity in this area may bring increased 'status' to the study of intellectual handicap, as well as improve the quality of residential care.
APPENDIX I

The 'social trainers' at Canberra's two hostels for the intellectually handicapped were asked to sort 30 statements, each describing a mode of behaviour or an activity relevant to their work. Half of the statements were directly resident oriented and half described other aspects of the job which are generally also considered important.

Each of the 10 employees was asked to sort the statements into 5 groups of 6 statements each, according to the following degrees of importance: most important; of more than average importance; of average importance; of less than average importance; of least importance.

Their choices were rank-ordered as follows. The 5 items which were rated 'most important' were:

1. Not doing things for residents which they can do for themselves.
2. Praising a resident for doing something good.
3. Encouraging residents to become independent.
4. Teaching a resident a new skill.
5. Developing good relationships with residents.

The 5 items which were rated 'least important' were:
1. Being sure that hostel furniture and furnishings don't get damaged.
2. Keeping to hostel routines.
3. Making sure that meals are on time.
4. Checking that laundry is clearly marked.
5. Making sure that bedtime is the same every night.

'Time-sampling' (1) of staff activities, as used by Thormahlen (1965) would be necessary to check how closely this apparent preference for non-routine, resident-oriented tasks is related to actual behaviour 'on the job'. Casual observations of the two hostels suggest that there is, in fact, a marked difference between them in the importance which is attached to hostel routines, and this appears to reflect the preference of the respective hostel 'managers'. As suggested in the section on the social/organizational system the significance of the role of the head of the unit in determining and rewarding staff practices tends to be related to the size of the facility.

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(1) 'Time-sampling' is a technique using observations of an ongoing series of activities made at specific intervals.
APPENDIX 2

Whatmore, Durward and Kushlick's
Observation Codes

Resident behaviour is classified in the following categories:

1. 'Disruptive' behaviour - any behaviour which is likely to, or does, cause physical damage to the child or other persons, or which causes physical damage to furniture and fittings.

2. 'Inappropriate' behaviour - any behaviour which is socially disruptive or which is less physically damaging to the physical environment.

3. 'Neutral' behaviour - any behaviour which is totally passive or which has very little impact on the physical environment, or which is a well established skill.

4. 'Appropriate' behaviour - any active 'adaptive' behaviour in which it is likely that new skills will be acquired and existing skills maintained.

Staff behaviour is classified into two categories of 'attending to' or 'not attending to' the resident.
Preliminary observations at one of Canberra's hostels
at different times of the day using the above categories suggested
that they covered the range of resident behaviour observed. However,
the reliability of the writer's coding was not checked by another
observer. It appeared that examples of 'inappropriate' behaviour
were frequently reinforced by staff attention. Whatmore, Durward
and Kushlick do not discuss the possibility of using their observation
codes for purposes of staff training, but the present writer was
impressed by their potential use in this area. Observation of staff
reinforcement and non-reinforcement of resident behaviour could be
used to supply 'feedback' as to their effectiveness in maintaining
or reducing certain behaviours. This may be especially useful where
the role of the direct care staff is being re-defined from a custodial
to a 'training' role. It would also provide a valuable training tool
for the implementation of behaviour modification programmes, which
rely on the use of consistent 'reinforcement' schedules.
APPENDIX 3

King, Raynes and Tizard's
Scale of Child Management Practices

In this scale staff practices relating to the management of children in residential settings have been operationally defined, and a standard means of assessment is described as follows:

1. **Depersonalization**
   (a) Defined as the absence of opportunities for residents to have personal possessions or privacy, or of situations in which there is opportunity for self-expression and initiative on the part of the residents.
   (b) Questions are asked about what is done with the personal possessions the children bring with them from home; if, after admission, the children have personalized clothing and toys of their own and places in which to keep them; if children have pictures of their own in their rooms and whether they are taken on outings.

2. **Block treatment**
   (a) Defined as the regimentation of residents together, as a group, during or after, any specific activity.
   (b) Questions asked include whether the children are regimented on getting up, before or after bathing and toileting, and before or after meals.
3. **Rigidity of routine**

(a) Defined as the inflexibility of management practices, so that neither individual differences among residents, nor unique circumstances, are taken into account by the staff in their interaction with the children.

(b) Questions are asked about whether getting up and going to bed times are unchanged throughout the week; if there are set times at which the children can use their bedrooms and the garden, and at which their parents can visit them.

4. **Social distance**

(a) Defined as the limitation of interaction between staff and children to formal and specific activities and the use of physically separate areas of accommodation by the children, and those who care for them.

(b) Questions asked include whether the staff sit with the children and watch television with them, and whether the children have access to all the rooms in the cottage or ward in which they live.
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