

1977

# An adaptation of the critical incidents technique to evaluate the process of developmentally disabled persons toward normal behavior.

Craig Zimring

*University of Massachusetts Amherst*

Follow this and additional works at: <https://scholarworks.umass.edu/theses>

---

Zimring, Craig, "An adaptation of the critical incidents technique to evaluate the process of developmentally disabled persons toward normal behavior." (1977). *Masters Theses 1911 - February 2014*. 2095.

Retrieved from <https://scholarworks.umass.edu/theses/2095>

This thesis is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Masters Theses 1911 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).





312066013805395



An Adaptation of the Critical Incidents  
Technique to Evaluate the Progress of  
Developmentally Disabled Persons Towards Normal Behavior

A Thesis Presented  
By  
Craig Marshall Zimring

Submitted to the Graduate School of the  
University of Massachusetts in partial fulfillment  
of the requirements for the degree of  
MASTER OF SCIENCE  
February 1977  
Psychology

An Adaptation of the Critical Incidents  
Technique to Evaluate the Progress of  
Developmentally Disabled Persons Towards Normal Behavior

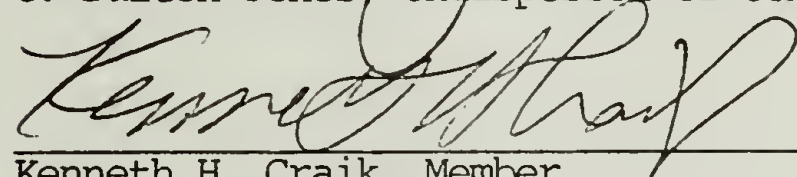
A Thesis Presented


by

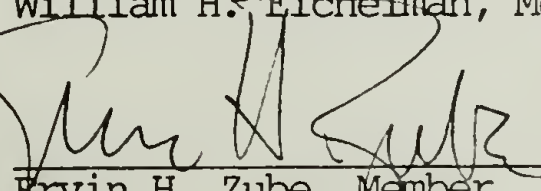
Craig Marshall Zimring

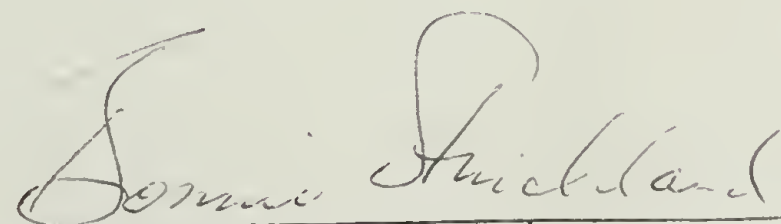
Approved as to style and content by:

  
C. Dalton Jones, Chairperson of Committee

  
Kenneth H. Craik, Member

  
William H. Eichelman, Member

  
Ervin H. Zube, Member

  
Bonnie Strickland, Chairperson  
Psychology Department

## Acknowledgements

This thesis has benefited from the involvement of many people. Dalton Jones, the chairperson, has devoted many hours to coding, discussion and personal support. Ken Craik, Bill Eichelman and Erv Zube have all provided more time and input than is usual for committee members, and I owe much to their help. Chris Knight has served as an "ex-officio" committee member by virtue of his co-directorship of the ELEMR Project, and has provided considerable help and support. Cindy Barkley and Ben Press collected many of the incidents and helped make many difficult decisions. Jean Hale has typed many drafts of the incidents and categories. Bea Mullendore has shown great patience in typing the final draft. My greatest debt is to Joanne Green, who has had the wisdom to provide support in times of stress and to provide incentive in times of inertia.

Finally, the administration and direct care staff of Belchertown State School have been consistently enthusiastic in their support throughout the project. The thesis has been supported in part by grant no. S.R.S. 5-27507 from the Developmental Disabilities Office, of the U.S. Department of Health, Education and Welfare, and I would like to graciously acknowledge their help.

## TABLE OF CONTENTS

Introduction.....	1
Purpose of the Research	2
The Research Setting as a Social-Physical System	3
Review of Literature	6
Methods.....	15
Collection of Incidents	15
Establishing Categories of Incidents	16
Scaling of Critical Incidents	17
Results and Discussion.....	19
Implications of Scale Development	19
Reliability and Validity	26
Implications For Environmental Psychology	31
Strengths and Weaknesses of the CIT	33
The Next Steps, and Further Research	34
References.....	37
Appendices	

## INTRODUCTION

Assessing the impacts of the designed environment on human behavior is difficult and confusing. Behavior is part of a complex interrelated system which includes social, economic and cultural elements as well as physical ones (Knight, Zimring and Kent, In press). Moreover, there is little theory to guide the researcher in establishing conceptual boundaries and in focusing research. How should we proceed?

Although we are in the most rudimentary stages of exploration of person-environment interactions, several authors have addressed the problems of emerging disciplines, and may provide some direction. Proshansky (1976) has stressed the importance of the integrity of settings. He feels that the researcher must not violate this integrity either by the obtrusiveness of his/her data gathering, or by exaggerated imposition of their own conceptual scheme on the data analysis which blinds them to the phenomenology of the participants. Knight (1976) proposed that an inductive process of "discovery" must precede a path to increasingly more deductive "invention."

In light of these concerns, the present study has adapted the Critical Incidents Technique CIT (Flanagan, 1954) for use in examining person-environment interactions. The CIT is a flexible technique. It calls for a minimum amount of structuring by the researcher and enlists the aid of active participants in the setting in determining the items and categories of behavior which are most critical to observe.

## List of Figures

1. Steps in processing a sample incident.	17
2. Summary of methods.	18
3. Categories of incidents.	22
4. Summary of mean reliabilities and ratings by category.	25
5. Potential format for a scale to evaluate residents' progress towards normalization	35



## Abstract

The Critical Incidents Technique (CIT) (Flanagan, 1954) was employed to generate behavioral items and categories for use in constructing a scale to measure the progress toward normal behavior of developmentally disabled state school residents. Six hundred forty three specific incidents of resident behavior were collected by interviews with direct care staff at a large state training facility. These incidents were structured, edited and checked for validity to produce 223 distinct incidents in 21 categories. Implications of this scale for environmental psychology and the normalization are discussed.

## Purpose Of The Research

The purpose of this research was to accomplish the initial steps in the development of a simple, easily administered scale to evaluate the progress of state school residents (labelled severely or profoundly retarded) toward the avowed institutional goal of "normalized behavior." These steps included: generating scale items, organizing these items into dimensions of behavior, and creating preliminary weighting of those individual items as indicators of progress toward normal behavior.

When finally completed, the scale will tap the knowledge of the direct-care staff about residents. Direct-care staff members will use the CIT to rate individual residents with whom they work on a day-to-day basis. The result of the rating will be a "normality" profile for those residents on about 20 dimensions which span the resident's life. These include "personal skills" (e.g. toileting, eating), "personality" (e.g. enthusiasm, initiative) and "interactive style" (e.g. helping, anger). For example, the following incident is in the "Helping-cooperation" category: "In the morning, when an attendant was making a bed, R. came over and tried to help."<sup>1</sup> This incident has a weighting of 1.3 on a scale from 1-7, (very good).

The completed scale will provide a broad quantitative profile of residents. As such, the CIT can be used in environmental behavior research as an index of behavior change in a variety of situations, as when testing its co-occurrence with environmental modification. The

1. Incident no. 71 in Appendix A.

ELEMR Project,<sup>2</sup> for example, may use the CIT to supplement the qualitative and quantitative methodological approaches it is using to record resident behavior, as resident living spaces are renovated. The CIT may be used to help address a question surrounding much recent work with the developmentally disabled: "Does a more normal environment in fact support more normal behavior?"

### Overview of Procedure

The procedure involved the preliminary steps for constructing a scale. These steps included the following:

- 1) Structured 30-minute personal interviews were conducted with direct-care staff to solicit specific incidents of resident behavior.
- 2) These incidents were categorized into dimensions of resident behavior based on three methods: sortings by several groups of participants, by examination of other scales, and by the conceptual thrust of the ELEMR Project.
- 3) In the final step, each incident received a mean value for use in the final scale weightings. These were established as direct-care staff members were asked to sort incidents by how positive or negative they judged the incident to be.

### The Research Setting as a Social-physical System

The research was conducted at Belchertown State School (B.S.S.) in Belchertown, Massachusetts. B.S.S. is a residential training facility for about 700 developmentally disabled people ("residents") who have been

2. This refers to the "Effects of the Living Environment on the Mentally Retarded" Project. This is a multimethod research program which is observing residents and staff as privacy and physical amenities are introduced into resident living spaces (c.f. ELEMR Tech Report 1).

labeled severely or profoundly retarded.

To most efficaciously examine the interactions of residents and the built environment, we must in fact consider three elements in the BSS system: residents, direct-care staff, and the built environment.

Interactions between these elements must be seen in context of the dominant treatment model for residents which is primarily custodial, in which physical well-being is the paramount priority, often to the expense of social or personal advancement.<sup>3</sup> Also, poor financial and educational support, and low status attributed B.S.S. jobs from the outside all tend to sustain a system where residents are given little training and have few meaningful activities. This has been reflected in the high turn-over rate, estimated to be about 10% per month for direct-care staff at BSS. Despite these social and fiscal barriers, however, B.S.S. has shown some progress in moving toward more active treatment. This is reflected both in the orientation of incidents collected and in their ratings by staff (this is discussed more fully below, see p. 19).

The residents have been clinically evaluated as severely or profoundly retarded. Experience in the setting, however, reveals a large range of functional ability. Whereas some residents are quite verbal and independent and are quite proficient in social skills, others require constant nursing and attention to basic bodily functions.

The residents at BSS range in age from about 6 years to 80 years of age, although the critical incidents collected in the present study describe adult residents from about 18 years to 80 years of age. This limitation was made to conform to the research population of the ELEMNR

3. See Wolfensberger, (1973) for a fuller discussion of changing treatment models in the mental retardation field.



Project, which consists of adults.

The direct-care staff have the greatest influence over residents and can alter the impact of other components of the system on them, a fact that is clearly perceived by residents. Staff are of especially great concern for evaluating residents, in part because of the high frequency of their contact with residents and their consequent knowledge, and in part because of their great potency in effecting changes in residents' lives. These staff have low status within the BSS administrative structure. They tend to be poorly paid (about \$110 per week after taxes) and poorly educated (many have not completed high school) although the average education has improved somewhat over recent years. The custodial-maintenance attitude is reinforced by high resident-staff ratios (effectively 15 to 30 residents to each staff member).

With respect to the built environment, when the critical incidents were collected (1975-1976), all residents mentioned in the incidents were housed in moderate-sized dormitories built in the 1920's and 1930's. These two-story structures accommodated 55-60 residents, and were of an institutional design common during their construction, providing easy surveillance and clean-up. Six large (30' x 40') rooms constituted the primary living space. As custom dictated, these rooms were pale-colored and were faced with ceramic tile. Three rooms each served as open sleeping wards for 15-20 residents, and the remaining spaces were sparsely furnished dayhalls or dining halls. Most rooms were locked to keep residents either in or out; there was little privacy.

As of this writing many of these dormitories are undergoing renovations and are being transformed into somewhat more homelike spaces, with modular units being introduced in some buildings and partitions in others.

The modular units provide space for individuals, whereas the partitions separate the large rooms into one to four person spaces. The modular units have 4.5 foot high walls which are intended to provide privacy while seated or lying down. The walls are joined together in "L" or "T" shapes, and have built-in wardrobes, dressers, and work surfaces. In both arrangements the bathrooms will be modernized with the addition of private toilet stalls and private showers.

In summary, the research used the CIT to help establish existing behavior patterns of residents by soliciting the input of staff. These patterns were then organized and categorized. The initial steps of scale development are described in this thesis. The completed scale will be used to evaluate individual residents, and should prove to be useful in an environmental psychological context by providing an index of environmental influences on behavior.

### Review of Literature

To illustrate the context of this study as an index sensitive to the effect of the designed environment on behavior, three research areas are selectively reviewed: the design-behavior relationships, normalization, and the critical incidents technique.

#### The Design-Behavior Relationship

There has long been a supposition in American society that the designed environment strongly affects behavior. We spend vast sums to design, construct, and remodel attractive municipal and private buildings. It is only within the past few years, however, that the effects of design on behavior have received systematic examination, generating journals such as Environment and Behavior, Design and Environment, and Man-Environment Systems, the seven conferences of the Environmental Design Research Asso-

ciation and a number of other conferences and symposia.

Environmental Psychology has begun to focus directly on the effects of design on behavior (Craik, 1973; Griffin, 1974; and Moos, 1974). This approach can be seen in many ways to stem from the "Human Factors" area of psychology which examines the effect of a single environmental factor on performance. Birren (1950, 1960, 1961a, and 1961b) and Gerard (1958), for example, have dealt with the importance of color on behavior.

Effects of design on behavior have been shown in a number of institutional settings as well. Clem, et al (1972) found significantly more interaction both for groups and dyads in an "open plan" school which was matched with a traditional school on program, facilities and ideology. Although there were some confounding variables such as teacher differences, effects of the physical and social environment were indicated. Davis (undated), in a large scale project for the State University of New York system, found that the design of classrooms significantly influenced behavior within those rooms. He found the most significant variables to be seating arrangements, lighting, and physical structure. In other research, Bartholomew and Potts (1971) extended those findings to the pre-school environment by examining the effects of room size, shape, lighting, and texture on play aggression, cognitive development, and a number of other variables. In a study of the business office, Wheeler (1969) reported that a number of different dimensions, such as lighting, heating and air conditioning, affected working behavior as indicated by employee questionnaires.

Of special interest are studies dealing with specialized residential therapeutic environments. Ittelson, Proshansky and Rivlin (1970a) used a behavior mapping technique which literally mapped behavior by recording



the type and place of occurrence of patient behavior in repeated observations. They found more interaction occurred in certain areas (such as entrance ways), and that more highly social patients spent far more time in social areas like the dayroom. Esser (1973) used an observational technique, spanning five months, which revealed notable territorial and hierarchically patterned behaviors among emotionally disturbed boys who lived in small cottages. Kasmar, Griffin and Mauritzen (1968) found that "beautiful" and "ugly" rooms had complex influences on outpatients, with sex, room and particular experimenter being important. Moos (1967, 1970) likewise found that there were many strong subgroup differences in how patients reacted to "beautiful" and "ugly" rooms, with some categories of patients reacting more strongly to certain settings.

Some experiments have found the manipulation of single variables fruitful. Sommer (1965, 1967), using constructs derived by Osmond (1957), found that moving furniture into "sociopetal" (interaction fostering) patterns significantly increased social interactions in several settings. Sommer grouped chairs that had formerly lined the walls and beautified the ward. He found dramatic increases in social interaction. Further studies have replicated these findings (Holahan, 1972; Mehrabian and Diamond, 1971). Cheek, Maxwell and Weisman (1974), in an interview and questionnaire study, observed dramatic increases in continence, neatness and pride in psychiatric patients after the introduction of carpeting. Observations by the editors of The Nations Hospitals and Nursing Homes (1967) supported these changes with the introduction of carpeting, noting that in the editor's experience positive effects almost invariably resulted. In a study of the effect of bedroom size in hospitals, Ittelson, Proshansky and Rivlin (1970b) found that isolate-passive behaviors increased dramati-



ically as bedroom size increased, with such behaviors being nearly absent in single rooms. Ravensborg (1969) achieved results similar to many above, finding that the therapeutic effect of ward change was different for different types of patients, with the better patients improving more.

In examining the literature most directly relevant to this study, the material directly concerned with the effects of the physical environment on the retarded, we find a serious paucity of quantitative research. Most literature that deals with the effect of design upon behavior, even by acknowledged leaders such as Anna Gunzburg (1967, 1968) and Gunnor Dybwad (1968, 1969, 1970), although based on long experience, is not yet experimentally verified. Gunzburg focuses her perceptive remarks on architects who are not aware of the basic considerations in designing for the retarded. Dybwad attempts to operationalize the theoretical concepts of normalization outlined below. Because of the lack of any kind of empirical literature in the area, the literature with the similar intent of Gunzburg and Dybwad is briefly noted.

Lapuh (1969), a Yugoslavian, commented, perhaps importantly for the project at hand, that converted older environments may actually be more therapeutic than new ones because they often contain odd spaces and interesting features which can be of therapeutic value. Many writers (Norris, 1969; Bland, 1969; Abramson, 1972 and others) advocated flexibility in design, and stressed the importance of programming for normalization as part of design, by giving the residents more experiences with such everyday items as faucets, latches, locks, etc.

In reviewing the literature dealing with the effect of designed environment on behavior several conclusions emerge. First, the area is

embryonic as a field of study. Most findings and conclusions are tentative because many experimenters are forced to develop entirely new methods and approaches to problems. Second, only a very few have been conducted in settings for mentally retarded citizens. Third, many studies have found the effects of design on behavior to be manifested in changes in social interaction patterns. And, fourth, the same environment may affect different groups differently, indicating a need for different groups to be observed on a number of different measures.

### Normalization

The normalization concept has recently gained general acceptance among progressive workers in the developmental disabilities field. Wolfensberger (1973) has described the normalization concept as, "making available to the mentally retarded patterns and conditions of everyday life which is as close as possible to the norms and patterns of the mainstream of society. (P. 181)" Knight, Zimring and Kent (In press) have suggested that the normalization concept has been justified principally in two ways: on ethical-civil rights grounds, and as a behavioral hypothesis.

The ethical position suggests that it is morally wrong to label the developmentally disabled as deviant, and to isolate them "behind the walls of bleak, overcrowded and dehumanizing institutions." (Knight, Zimring and Kent, P.3). It is felt that it is the responsibility of society to integrate these citizens into the mainstream and to provide them a "normal" living environment.

The "behavioral hypothesis" position provides a real-world example of an environmental behavior hypothesis. This position suggests that much of the bizarre behavior associated with the institutionalized developmentally disabled is due to the peculiar demands of the institutional

environment rather than to any underlying organic problems. It is argued that when moved to the community and provided a more supportive social and physical climate, the developmentally disabled will act in a more normal manner. Proponents of the behavioral hypothesis position tend to suggest a clear and powerful relationship between environment and behavior; normal environments influence or cause normal behavior.

Knight, Zimring and Kent defined normalization as positive rather than typical:

"Normalization," "normal environments," and "normal behavior" are all terms that may be criticized for their vagueness and implicit value content. They may imply typical, average, positive, or ideal. Moreover, the meanings of these terms are highly dependent on personal values, social class, and culture. In this sense the terms present some vexing conceptual problems unless they are carefully defined. "Normal behavior" will refer to behaviors that are positively valued, adaptive, and socially acceptable in the wider culture (e.g. high personal and social competence, independence). "Normalization" of built environments is taken to suggest positive and healthy settings, facilitating adaptive behaviors within this same value context.

Moreover, "normalized" environments fall on a continuum of adaptiveness. In moving away from institutional settings, the "homelike" environments (which are seen as the goals of normalization) fall somewhere toward the more positive and healthy end of this continuum. However, the ends of the continuum are undefined. We may be fairly sure that these homelike environments are not optimally healthy or adaptive, just as the homes of many non-

institutionalized people are not optimally healthy (Greg Olley, personal communication, 1976)."

### The Critical Incidents Technique

The CIT is a flexible data gathering method which has been adapted for use in a wide variety of settings. Fivors (1973) lists over 600 references which employ the method, and indexes the references in 120 categories, including: attitudes, mental retardation, personnel selection, job proficiency/performance, ethics, teaching, and many others. Each researcher has adapted the method to his/her own goals. Each study, however, relies on specific incidents of behavior, called critical incidents, which are collected from a population knowledgeable about the setting.

In the definitive article on the technique, Flanagan (1954) stated, "By an incident is meant any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act. To be critical, an incident must occur in a situation where the purpose or intent of the act seems fairly clear to the observer, and where its consequences are sufficiently definite to leave little doubt concerning its effect (p. 327)."

These incidents are collected by interview or questionnaire from sources informed about the setting. In a study aimed at creating nursing evaluation scales, for example, Smith and Kendall (1963) surveyed 630 nursing supervisors for specific incidents which exemplified particularly effective or ineffective nursing behavior. Larson, Nichols and Jacobs (1969) and Jacobs, Nichols and Larson (1969) interviewed nurses at state institutions for the mentally retarded and compiled



critical incidents for nurses and attendants in those institutions. Goroff (1967) interviewed supervisors at community homes for mentally retarded people to determine behaviors critical for success.

After the incidents are collected, they are typically sorted, categorized or scaled. Flanagan (1954) suggested an inductive, subjective technique in which categories are derived from the incidents as they are collected. Smith and Kendall (1963) established categories through interviews with their informants, and sorted incidents into these categories as the incidents were collected. Other researchers have created a priori categories based on existing theories or hypotheses (Kay, 1959; Glasser and McVey, 1961).

The collected and categorized incidents have been used for a wide variety of purposes. Kiel (1967), for example, has used them to define the concept of aggression. Also, the incidents have been collected with respect to a diversity of jobs. The categories are taken as significant dimensions of the job, and categorized incidents are used for training, placement, and evaluation (Dunnette, 1966). The latter case most closely approximates the use of critical incidents to evaluate the developmentally disabled. Comprehensive evaluation of job performance is akin to comprehensive evaluation of personal performance, the topic of the present research.

In one example of job evaluation, Smith and Kendall (1963) were called upon to develop scales to evaluate nursing performance. Their procedure involved initial interviews with nursing supervisors to obtain gross categories of important nursing behavior (e.g. organizational ability, skill in human relationships). Within each category Smith and Kendall then asked supervisors to indicate specific instances

of positive and negative performance. Within "skill in human relationships," for example, Smith and Kendall received: "In the presence of a woman who is crying because her husband is dangerously ill, this nurse would be expected to tell the woman not to cry (Dunnette, 1966, p. 99)." This list of incidents was then edited to eliminate redundancies, and to provide clarity and consistency of style.

The next step in the procedure required returning with this modified list to a group of supervisors for them to rate each incident on the quality of job performance which it exhibited. A nine point scale ranging from poor to excellent performance was used. Choosing the incidents which showed the greatest agreement within each category, Smith and Kendall could use these incidents as examples of different points along the nine point nursing performance scale for each category. For example "nurse could be expected, whenever possible to sit down and talk with a terminal cancer patient who is considered demanding (Dunnette, 1966, p. 97)" was consistently rated a 7 (or quite good) on "skill in human relationships." Smith and Kendall then could supply that incident as an example of a 7 in rating nurses on "skill in human relationships."

The CIT is a highly efficient technique in that it capitalizes on largely untapped populations who make extensive day-to-day observations in the research setting. By utilizing their experience, the experimenter is able to make judgments and organize his/her observations at a level that would ordinarily require years of exposure to the setting. Also, many evaluation forms are written in the language of professionals rather than of the individuals who are likely to do the ratings. The CIT utilizes the raters' own words. Many forms do not provide clear indicators as to the meanings of each value on scales for evaluation, whereas the

CIT provides exemplary incidents for each value along the scales, ensuring a common frame of reference.

As can be seen from this brief review of the relevant literature, this research is a confluence of three previously separate fields. Environmental behavior research is attempting to assess environment-behavior interactions while respecting the context of the behavior. The normalization concept is motivating much current work and carries an implied assumption of environmental influence on behavior. The CIT bridges these concerns; the CIT provides a method with which to create a context-based index to examine complex environment-behavior interactions.

#### METHODS

The methodology of this research can be most clearly understood as three steps: collection of incidents, establishing categories of incidents and rating incidents.

##### Collection of Incidents

###### Subjects:

(a) Approximately 120 direct-care staff members were interviewed. An attempt was made to interview all staff at B.S.S. who worked with intermediate and lower functional level adult residents. There were eight refusals. Fifty-five percent of participants were females. Age of staff was not recorded but appeared to range from 18 to nearly retirement (65). Length of employment ranged from 8 months to 36 years, with most employees falling between 6 months and 1½ years. The B.S.S. Personnel Director verified this to be a fair reflection of the demographic profile of B.S.S. direct-care staff.

(b) Eight student volunteers were also interviewed to obtain a check on the biases of the direct-care staff interviews.

Procedure: The original intention was to solicit incidents through questionnaires. Early pretests, however, showed that this was precluded by the attendants' perceptions that they already had excessive paper work. After several pretests, a short (30 minute) structured interview schedule was established (Appendix A). The interviewees were asked to provide three specific incidents of positive behavior and three incidents of negative behavior. (A list of incidents is included as Appendix B).

#### Establishing Categories of Incidents

##### Subjects:

5 ELEM staff members and 5 B.S.S. staff free-sorted incidents.

5 MR Professionals checked categories.

9 University of Massachusetts undergraduates sorted incidents into categories.

##### Procedure:

Categorization involved 4 steps: (a) editing, (b) free-sort, (c) check for completeness, and (d) q-sort.

(a) Incidents were edited to eliminate redundancy and to increase clarity. The original language and style was retained where possible. Four hundred six incidents remained of an original 650 after this step.

(b) ELEM staff and several BSS professional and direct-care staff sorted the 406 incidents into piles "that seemed to go together." The sorters were then asked to provide a name for these stacks. These were used as category names. Composite categories were then produced from these sorts, and additional raters were asked to provide category titles for these composite categories. This was to verify the categories produced by the free-sort group.

(c) These category titles were examined for completeness by



5 Mental Retardation professionals .

(d) Nine University of Massachusetts undergraduates sorted the 406 incidents into categories established in (b) (above). The 223 items which had 67% or higher reliability were retained.

#### Scaling of Critical Incidents

Subjects: Nine direct-care staff members rated incidents.

Following the definition of Knight, Zimring and Kent (in press) of normalization as reflecting positive rather than normative changes, direct care staff were asked to supply judgments about incidents as good or bad, rather than as typical. Specifically, attendants were asked to place the 223 reliably sorted incidents into seven categories based on how good, or positive they felt the incidents to be, with 1 corresponding to very good, and 7 to very bad.

Summary

Figure 1 schematically illustrates the methodological steps for a sample incident.

Figure 1: Steps in processing a sample incident.

<u>Step</u>	<u>Incident</u>
Incident collected from a staff member by interview	"This morning a R hid her pill after she took it out of her mouth. She tried." (assigned number 198)
Incidents edited for clarity and to eliminate redundancy.	"This morning, R. tried to hide her pill after taking it out of her mouth." (This was chosen among three items judged identical.)
Categories established.	Category: Medical health, within adaptive skills, personal care. (65 categories were produced by raters. However, examination revealed a structure with 21 distinct categories organized by two levels of superordinate categories.)
Categories checked for face validity and completeness.	Raters produced titles similar to "medical-health" when presented with untitled items in this category.
CI's sorted.	85% of raters sorted incident 198 into the medical-health category.
CI's rated.	This incident received an average rating of "2" (quite positive). (Staff were asked, "If you saw a resident do something like the following incident, how good or bad to you think their behavior is, from 1= very good, to 7= very bad.)

Figure 2 shows the participants involved at each step.

Figure 2: Summary of Methods

<u>Task</u>	<u>Participants</u>	<u>Number</u>
Collecting critical incidents (CI's)	Direct care staff working in adult and adolescent buildings at BSS	120
	Student volunteers at BSS	8
Editing incidents for clarity and to eliminate redundancy	ELEMR Project Staff	5
Establishing categories	ELEMR Project Staff	5
	BSS direct-care and professional staff	5
Checking categories for face validity and completeness	BSS direct-care and professionals (different individuals from above)	5
Sorting CI's	ELEMR Project Staff	5
	U Mass undergraduates	9
Rating CI's	BSS direct-care staff	9

produced more incidents which were offered as positive incidents than did staff in buildings housing lower functioning residents. There are several reasons for this. Almost by definition of "higher functioning", resident behavior would appear more positive to most observers in higher level buildings.<sup>4</sup> Also, however, working in these buildings was considered a reward for staff, hence staff were better qualified and probably had a more positive outlook. The physical environment was better, too. Residents were considered able to take care of "nicer things" and were often provided more toys, televisions, posters and similar items.

These interviews provided a wealth of idiosyncratic information, as well, in addition to the specific incidents. During the pretest it was hoped that written questionnaires would be effective for gathering incidents, and early administration of the questionnaire provided a poignant moment. After receiving a questionnaire, a staff member shyly approached the experimenter and explained that she couldn't understand words in the instructions such as "positive" and "negative." This feeling was echoed by other staff members, and resulted in the adoption of the more cumbersome individual interview procedure. This experience has been reinforced at other times at BSS. The confluence of low status and poor pay has resulted in the hiring of many poorly educated staff members. This is changing somewhat as staff support is increased and as fewer jobs are available elsewhere for the college educated.

4. This is borne out by the observational data of the ELEMR Project where less aggression, more cooperation, etc. occur in these buildings.



## RESULTS AND DISCUSSION

The purpose of the research was to provide the initial steps in creating a scale to measure progress towards normal behavior. In each or the several steps of development, however, valuable "data" were gained which shed light on the BSS system. This section will examine each methodological step separately. It will then proceed to issues of validity and reliability, then will discuss the implications of the CIT for environmental behavior research. Finally, the steps for the final development of the C.I.T. based scale will be outlined, and future research will be proposed.

### Implications of Scale Development

Collection of incidents: As discussed above, nearly all attendants who worked with adult residents from June, 1975 to December, 1975 were interviewed, with a very low refusal rate. Approximately 595 incidents were collected through structured interviews (Appendix A) with direct-care staff, and 48 through interviews with student volunteers who were familiar with BSS. The student interviews were used as a test of bias of the staff. Although generally somewhat longer than the staff incidents, the students' incidents were judged similar to the staff's in content. They were included with the staff interviews for later analysis.

When the incidents were sorted for redundancy, 406 incidents were retained. Nilsson and Anderson (1964) suggested that if 25% of incidents were redundant they are assumed to adequately sample all behaviors. Here 33% were redundant. This was taken to indicate that the sample of incidents may have been adequate.

The distribution of the incidents was as might have been expected: The staff working in buildings housing higher functioning residents

Establishing categories of incidents: Inspection of other scales revealed three common superordinate categories of resident behavior: cognitive-learning, grooming and interpersonal behavior. This trichotomy fit well with the ELEMR theoretical model (Knight, Kent and Zimring, In press), which dictated cognitive, personal care, and social components of normalization.

This structure did not prove adequate, however. When raters sorted their incidents into categories that "went together" (free sort) and supplied category titles, a total of 65 categories emerged. Although some categories were redundant, the category titles showed that the trichotomy above was inadequate in two important ways. First, the categories revealed personality dimensions present in the incidents, such as "enthusiasm" and "persistence" in tasks. These were not considered in the trichotomy.

Secondly, many items contained both personality and setting characteristics which requires "double-coding." For example, incident 167:

"In the dayhall R's were undressing for the showers. One R

began picking up the clothes and putting them in laundry bags." was coded both "upkeep of shared living space," and "initiative in starting and completing activities." This double-coding was difficult to accomplish under the cognitive-grooming-social behavior trichotomy.

The 21 category structure described in Figure 3 was established for the incidents. These categories can be considered dimensions of the data. There was reliability of at least .67 for incidents to be sorted into the same categories by different sorters. Also, similar groups of incidents were often labelled similarly by different sorters, suggesting some stability for category titles. This was later confirmed by presenting an

Figure 3: Categories of Incidents

	<u>No. of Incidents</u>
I. Adaptive Skills	
A. Personal Care	
1. Medical-Health	5
2. Toileting	5
3. Eating	5
4. Care of personal belongings	1
5. Dressing	3
6. Washing-Grooming	10
B. Upkeep of shared living space	5
C. Thinking/learning/knowing	18
II. Personality/Personal style	
A. Initiative in starting and completing activities	6
B. Enthusiasm	7
C. Persistence in tasks	13
D. Awareness of other people/social manners	12
E. Self-aggression	13
III. Interactive Style	
A. Boldness/asserriveness/stubbornness	2
B. Helping/cooperation/sharing	32
C. Affection/warmth	13
D. Anger/threat/verbal animosity/upset	22
E. Physical agression against other people	30
F. Outgoingness/interaction and activities participation	8
G. Respect for others rights/property	9
H. Dependence	4
	<hr/>
Total	223

untitled stack of incidents to a rater and having them assign a name to the stack. Category titles were closely reproduced when sorters were given incidents only, suggesting a strong common theme in the incidents. Also, when 100 previously-unsorted incidents were free sorted, no new categories emerged. This suggested that major categories in the data had already been established.

The categories reflect the structure incidents, and their structure is instructive as an organizing framework of resident behavior. Most scales of adaptive behavior for the developmentally disabled (i.e. AAMD Adaptive Behavior Scale, PAC, Camelot Checklist) focus on grooming and eating skills. It is clear that the behavior of the residents span far more than those dimensions. The dimensions of the CIT-scale would suggest that a wide variety of personality and social dimensions need to be considered in assessing behavior.

It can be seen that some dimensions are perhaps missing. For example, there is no category for "curiosity." Interviews with direct-care staff suggested several reasons for this. Curiosity is a very low frequency behavior and isn't often observed or reported. Also, the pressures of the staff member's job, which sometimes involves breaking up fights, causes staff to focus on the interpersonal behaviors of residents to the expense of solitary ones.<sup>5</sup> And, the interview situation may have encouraged interpersonal incidents.

5. This is supported by the relative saliency of aggressive behavior for the staff (about 20% of all incidents reported), when much fewer were observed in the ELEMR Project.



Sorting incidents into categories: The 406 non-redundant incidents were sorted into the 23 categories established above by 9 undergraduates who were familiar with the BSS setting. This resulted in 223 incidents which were reliably sorted by at least 66% of the raters. Although instructions permitted double sorting (i.e. one item in two categories) this sorting tended to select relatively simple unambiguous incidents. Items which contained both a setting (e.g. washing) and a personality trait (e.g. anger) tended to have low reliability.

Rating the incidents: Nine attendants were asked to sort incidents into 7 stacks based on how good or bad the incidents were. The ratings of the 223 reliable incidents is shown in Appendix A. These ratings are illustrated in Figure 4.

Highly reliable incidents tended to have extreme ratings (1 or 7), and to be fairly simple, as is common with many rating scales. The extremes tend to be more distinct, and the mid-values can reflect either a genuine half-way point, or a lack of opinion. Enough reliable middle values were obtained, however, for later use in the CIT-scale.

Some items provided interesting examples of changing trends at BSS. Incident number 6 was: "Resident 1 took toy away from resident 2, so resident 2 scratched the first resident until she bled." This incident was rated most negative by most raters ( $\bar{x}=7$ ). Several raters, however,

Figure 4: Summary of mean reliabilities and ratings by category.

<u>Category</u>	<u>mean reliability during sorting</u>	<u>ratings of items in category by staff 1(good)-7(bad) mean</u>
I. Adaptive Skills		
A. Personal Care		
1. Medical Health	.83	4.30
2. Toileting	.79	5.67
3. Eating	.86	2.15
4. Care of personal belongings	.84	6.15
5. Dressing	.88	5.84
6. Washing-Grooming	.87	2.01
B. Upkeep of shared living space	.80	1.97
C. Thinking/learning/knowing	.67	5.85
II. Personality/Personal Style		
A. Initiative in starting and completing activities	.79	5.85
B. Enthusiasm	.75	3.52
C. Persistence in tasks	.76	4.53
D. Awareness of other people/ social manners	.80	2.27
E. Self-aggression	.67	1.12
III. Interactive Style		
A. Boldness/assertiveness/ stubbornness	.91	2.56
B. Helping/cooperation/ sharing	.75	3.04
C. Affection/warmth	.84	1.97
D. Anger/threat verbal animosity/upset	.84	2.45
E. Physical aggression against other people	.89	5.9
F. Outgoingness/interaction and activities participation	.84	5.78
G. Respect for others rights/ property	.87	3.93
H. Dependence	<u>.67</u>	2.42
<u>Overall</u>	.81	

rated this incident highly ( $\bar{x}=2$ ) because of the initiative it illustrated. This was a trend seen with several items. Only three raters showed this trend, hence this must be considered cautiously. It is interesting to note that these staff members came from buildings which housed higher functioning residents. Their ratings could perhaps be explained in part by the forces which prompted them to report more positive incidents: better status and more pleasant environment.

The development of the CIT-scale has helped build a picture of BSS as a system in flux. It retains much of the stigma of the past. Many employees are poorly educated, and maintain an attitude influenced by the traditional custodial treatment model. There is change, however, and some staff focus on encouraging values of independence and resourcefulness.

The incidents also reflect the importance of social interactions on residents at B.S.S. The staff focus on interpersonal incidents and tend to ignore solitary behavior. This would suggest that if we expect to understand the link between a changed physical environment and changed behavior at BSS, we must focus on these social connections. Individual exploration may occur, but it is certainly not reinforced, and may lose some of its power.

#### Reliability and Validity

Perhaps the most important characteristics of a test instrument are reflected in its qualities of reliability and validity. These are discussed below with respect to the CIT scale. Furthermore, authors concerned with experimental design have identified a related but distinct set of concerns about the validity of experiments as a whole, rather than of specific instruments. Although these latter concerns are dependent on

many factors in addition to the test instruments, it will be seen that proper use of the CIT scale enhances experimental validity.

Anastasi (1975), suggests that we must consider three important types of validity: face validity, content validity, and empirical validity. Face validity is common usage. It asks the question "does the test appear to measure what it purports to measure?" Although often used informally, face validity clearly enhances both construct and internal validity. Face validity is a strong aspect of a CIT-derived scale. It is in the language of the raters and will hopefully be engaging and comprehensible entirely because of its face validity.

In psychometric usage the emphasis of content validity focuses on issues of content sampling, in which all aspects of a content area must be adequately represented. Discussion of the relationship between the construct and the operationalization will be considered under the label of "empirical validity."

This issue of content sampling deserves serious consideration. Were all aspects of a resident's life adequately sampled? This was partly verified at several steps, by interviewing many direct-care staff, and interviewing students, and by checking category names with direct-care staff and others. Also, 100 randomly chosen incidents were reserved until categories were established, as was suggested by Flanagan (1954). When these were sorted, no new categories emerged, suggesting that the categories spanned the incidents.

It remains, however, that some potential aspects of "normal" life such as curiosity were not included. Although the collected incidents might adequately span resident behavior at BSS during a later time. If the CIT-scale was used in such a setting, items and categories probably



should be verified through observation or by collecting some new incidents and comparing these with the ones in Appendix A.

Empirical validity is considered to be the paramount indicator of test validity, perhaps because it is quantifiable. This involves the relation between test scores and a criterion. A distinction is sometimes made between concurrent validity (with a concomitant criterion) and predictive validity (with a future criterion). In either case, empirical validity is expressed as a validity coefficient which reflects the correlation between the test and the criterion. It should be noted that the choice of criterion involves operationalizing the construct that is being measured. The empirical validity of a test is only as good as this operationalization.

Empirical validity remains to be established by comparing profiles on the CIT scale to criteria. A variety of criteria can be considered. The profiles can be correlated with observational data. For example, if a resident scored high on "Outgoingness" (III f on Table 3) it would be expected that they would also show frequent resident-resident and resident-attendant interactions on the observational scale of the ELEMR Project. Also residents who showed progress on the CIT scale would be expected to also show progress on other evaluations that go on in BSS such as teacher evaluations and Title XIX<sup>\*</sup> evaluations. Finally, an "ultimate" criterion for the more capable residents would be their success in the community.

\* Title XIX is a portion of the Medicaid Act which mandates extensive annual evaluations of residents.

This would truly be the most important type of "predictive validity."

Test reliability focuses on the stability of a test score for a single individual across time, or of several raters judging a single item. This first type can be measured by repeating a test and computing a correlation, or if contamination is expected, by using similar items at different times. The second form can be computed by examining the scores of the several raters. Reliability has also been used in a sense similar to sampling error, in which the difference between groups is considered. All of these approaches are important for the CIT.

Reliability is a critical issue, and is a prime reason for the original adoption of the CIT. There are generally only 2 or 3 attendants who know a resident well, and if ratings by attendants are to be useful there must be good interrater reliability. The CIT has produced this in other settings because of its concreteness and face validity for raters (Flanagan, 1954). Also, Flanagan (1954) and others have shown that the CIT has good stability across time for the same reason.

In summary, because the construct of "progress" has emerged from the setting, the CIT has good content and face validity. The CIT should produce good reliability as well.

Several types of validity for research studies have been described in the behavior literature (c.f. Cook and Campbell, 1976, and Knight, 1976). Although these depend primarily on the experiment rather than the instrument, the CIT may enhance them. Internal validity has been defined to suggest a causal relationship between the operationalized manipulation and the measured outcome. If one can reasonably infer such a causal relationship, the study is said to be high in internal validity. Internal validity says nothing about whether the operationalization

adequately represents the construct being studied, or about the generalizability of the result. It merely reflects whether the measured outcome can be traced to the manipulation or operationalization (Cook and Campbell, 1975).

By contrast, construct validity talks about the adequacy of the operationalization in representing the construct. It is construct validity that is influenced by "confounding" in the traditional sense of the word. A study is said to be confounded if two constructs (i.e. experimenter expectation and experience with the treatment) are present in the treatment, and the causal effects of the two on the outcome cannot be extricated. The famous Hawthorne factory studies may be helpful in clarifying the difference between internal and construct validity. The treatment (introduction of music) certainly caused a change in the dependent variable of work output. The study was high in internal validity. It was not clear, however, what construct was represented by the treatment. Was it the effect of music? Or was it simply novelty, or what? The study was low in construct validity.

The use of the CIT-based scale in which both items and ratings are created by participants can aid experimental validity in several related ways. Perhaps most significantly, the operationalization of the construct "progress towards normal behavior" has evolved from participants in the setting itself. Participants were asked open-ended questions, produced specific items which helped to define the concept, helped create categories and aided in determining and checking categories for the incidents. This process would suggest good construct validity for a study which had a conceptualization closely related to the CIT. It would seem reasonable to propose that the CIT will in fact measure "progress," at



least with respect to the value system of the direct-care staff, who are the group with the most influence on residents. In addition the process has been checked at several steps with BSS professionals, students, and ELEMNR Project staff.

Internal validity is perhaps more difficult to predict; the CIT-scale has not yet been used. Several indications would suggest, however, that the CIT-scale might aid internal validity. One indication is closely related to the construct validity argument above. The CIT operationalized the construct in the terms of the direct-care staff who are the most potent influence on the residents. Knight, Zimring and Kent (in press) and others have suggested that most changes in resident behavior are mediated through this group. The CIT should then be sensitive to relatively subtle changes in residents' behavior. Also, the CIT involves concrete examples coming from the setting in which the residents are to be evaluated. In other settings (Fivors, 1973) this concreteness has helped to provide less variance in ratings, hence has increased the power of the test and has increased the likelihood that a treatment effect can be detected.

In summary, although experimental validity is related to experimental conditions, the use of the CIT may enhance construct and internal validity in important ways.

#### Implications for Environmental Psychology

There is an increasing awareness of the importance of context in environmental psychology (Proshansky, 1976; Moos, 1976). It is argued that environmental psychology is devoted to understanding the interactions of man and the physical environment. This setting is difficult, or impossible, to reproduce in the laboratory, hence we must turn to



the field. Furthermore, we must adopt techniques that do not disturb the integrity of the setting (Proshansky, 1976).

This integrity can be violated in at least two ways. One is by our techniques disrupting or altering the setting. Most observational research has to confront this problem. The presence of an observer may cause the participants to change their behavior. Also, much laboratory research is probably guilty of this violation, where research findings in sterile, abnormal conditions are generalized to all behavior.

A second way of violating the setting is more subtle than the first, but no less serious. We frequently "violate" the setting by unduly imposing our conceptual scheme on the situation that is being studied. Although approaching problems with a well-established conceptual scheme may be efficient as a science matures and significant theory is developed, it may be harmful in a new science such as environmental psychology. By using this deductive approach, we are of necessity selectively limiting our perceptions. Whereas entirely new theories may be appropriate for environmental psychology, by using a heavily deductive approach we may be limiting our perceptions to older laboratory-based conceptions.

We certainly will never operate without a conceptual orientation. The critical incidents technique, however, is promising in that it produces items from participants in the setting with minimum structuring by the experimenter. The participants decide on "critical" behaviors hence help the experimenter to understand the setting from the context of the participants. Also, by utilizing the participants to sort the incidents, major dimensions of behavior can be extracted from the setting.

The CIT can have variable impact on the setting with respect to altering it. If incidents are simply collected post hoc, the procedure

will most likely have minimal impact on the setting. If the incidents are collected in an ongoing way, the interviews may heighten the participants sensitivity to the ongoing behavior, hence change their own behavior.

#### Strengths and Weaknesses of the CIT

The CIT, as discussed above, may provide a method of data collection that helps to retain the integrity of the setting. Also, the CIT may capitalize on the experience of groups who are not commonly tapped for information, like direct-care staff or supervisors. Also, the CIT produces items which have face validity for participants in a setting. So, when incidents are used as scale items it should reduce variability of response, and produce an engaging, comprehensible scale. Finally, the data produced is extremely rich, and can be used for a variety of purposes.

The CIT may be a fairly inefficient technique, however. In this study, for example, the literacy of the direct care staff members was quite low, hence, personal interviews were required rather than the more efficient questionnaires. Flannagan (personal comment, 1975) suggested group interviews as a compromise, and suggested that incident collection was often facilitated by the interaction of group members. Pretests in the present study showed, however, that social pressures inclined towards conformity toward the perceived value system of the experimenter in these group sessions. Group members were encouraged to talk about "actualization of potential" and similar terms in a manner which suggested that these terms were meaningless to most participants. Individual interviews, although expensive, produced a much greater diversity of incidents. In a more literate setting, written questionnaires could be solicited, which would dramatically reduce the cost of the procedure.

### The Next Steps and Future Research

The ultimate goal of this research is to produce a scale to measure the progress of developmentally disabled persons toward more "normal" behavior. The masters project included the generation of items, constructing useful categories, and soliciting preliminary ratings from attendants. These ratings will serve as scale weightings for a checklist to rate individual residents. Direct-care staff members will be presented with a list of 125 incidents, which were reliably rated and will be asked to check how often (e.g. very often, sometimes, never) the resident would be expected to perform a behavior very similar to the behavior described. The incident would have assigned weightings. For example, incident 1 on Figure 5 was reliably rated a "2", and sorted into the Helping/Cooperation/Sharing category. When checked for a resident this rating will be multiplied by frequency (e.g. often, sometimes, never), and a value for this incident will be established. These values will be averaged for all items in the Helping/Cooperation/Sharing category (as well as all other categories). The mean of the category rating will reflect the residents' rating on that attribute (e.g. a resident might have a 2.3 overall score in Helping/Cooperation/Sharing, when all items are averaged).

Normalized behavior, to be meaningful, must be behavior which is useful in a community setting. Hence, ratings of incidents by community-home supervisors will be solicited, and will permit weighting of incidents as with direct-care staff. Also, ratings by BSS professionals will be solicited. The weightings will permit several interesting questions to be addressed. For example, do the conceptions of progress toward normal behavior vary for the three groups? If so, which conception are the residents most closely following?



Figure 5: Potential format for a scale to evaluate residents' progress towards normal behavior.

Instructions: Please check each item, indicating how often you would expect JOHN DOE to do something very much like the incident.

	very often	sometimes	never
<p>Incident 1</p> <p><u>R.</u> rinses toothbrush for handicapped R. when asked</p>			
<p>Incident 2</p> <p>R. was playing frisbee with another R. (R2), who can't walk well and has poor coordination. <u>R.3</u>, who wasn't playing, went to get the frisbee and brought it back whenever R.2 missed it.</p>			
<p>Incident 3</p> <p>2 R.'s, both swinging, were having trouble going high, so <u>3rd R.</u> went over and pushed them,</p>			



To briefly summarize, the patterns of behavior of the residents (as viewed by staff) have been captured in several hundred critical incidents. These incidents were sorted and categorized, producing 223 reliably sorted items in 21 categories. The interviews and ratings revealed BSS to be an institution in flux, caught between the former custodial treatment model and one that fosters growth and development. The next steps remain: validate the scale and move it to the community.

Finally, the results of the CIT scale will be validated against other data collected by the ELEMR Project. For example, residents who are low in aggression on the CIT should also be low in aggression on the observational behavioral data if the CIT is a valid predictor of behavior. Also, ratings of the same individual by different attendants should be similar. The scale should be reliable.

- Anastasi, A. Psychological testing. New York: MacMillan, 1974
- Bartholomew, R. and Potts, M. The pre-school physical near environment: The relationship between environment and behavior. Man-Environment Systems, S68, Sept. 1971.
- Birren, F. Color psychology and color therapy. New York: Univ. Books., 1950.
- Birren, F. The problem of color on schools. School and College, 1960. Nov.
- Birren, F. Color form and space. New York: Reinhold, 1961a.
- Birren, F. The rational approach to color in hospitals. The Hospital, 1961b, Sept.
- Bland, G. A. Some architectural requirements for a scientific approach to teaching the mentally handicapped in hospital schools. Journal of Mental Subnormality, 1969, 15.
- Cheek, E., Maxwell, R. & Weisman, R. Carpeting the ward: An exploratory study in environmental psychiatry. In R. H. Moos and P. M. Insel (Eds.) Issues in social ecology: Human milieus. Palo Alto: National Press Books, 1974.
- Clem, P., Ahern, K., Dailey, N. Gay, M. & Scantlebury, M. A comparison of interaction patterns in an open space and fixed plan school. Man-Environment Systems, 1972, 4, 59-60 .
- Cook, T. D. & Campbell, D. T. The design and conduct of quasi-experiments and true experiments in field settings. In M. D. Dunnette (Ed.) Handbook of industrial and organizational research. Chicago: Rand McNally, 1975.
- Craik, K. H. Environmental psychology. Annual Review of Psychology, 1973, 207.
- Dailey, W. F., Allen, G. J. Chinsky, J. & Veit, S. W. Attendant behavior and attitudes towards institutionalized retarded children. American Journal of Mental Deficiency, 1974 , 78 , 586-591.
- Davis, T. A. Area per activities in classrooms. Office of Facilities Programming and Research, State University of N. Y. Buffalo, N. Y.: State University of N. Y. Press, undated.
- Dunnette, M. D. Personnel selection and placement. Belemont, Calif.: Brooks/Cole, 1966.
- Dybwad, G. Planning facilities for severely and profoundly retarded adults. Hospital and Community Psychiatry, 1968, 19 , 42-45.
- Dybwad, G. Action implications for the USA today. In (President's Committee on Mental Retardation) Changing Patterns in Residential Service for the Mentally Retarded. Washington, D. C.: U.S. Government Printing Office, 1969.

- Dybwad, G. Architecture's role in revitalizing the field of mental retardation. Journal of Mental Subnormality, 1970, 16.
- Esser, A. H. Cottage fourteen: Dominance and territoriality in a group of institutionalized boys. Small Group Behavior, 1973, 4, 131-146.
- Fivors, G. The critical incidents technique; A bibliography. Palo Alto: American Institutes for Research, 1973.
- Flanagan, J. C. The critical incidents technique. Psychological Bulletin, 1954, 51, 327-358.
- Gerard, R. M. Differential effects of colored lights on psychophysiological functions. Unpublished Doctoral Thesis. University of California at Los Angeles, 1959.
- Glaser, W. A. and McVey, F. A. Evaluation of performance in public health nursing. Nursing Research, 1961, 10, 32-37.
- Goroff, N. N. Research and community placement: An experimental approach. Mental Retardation, 1967, 5, 17-19.
- Griffin, W. V., Mauritzen, J. H. and Kasmar, J. V. The psychological aspects of the architectural environment: A review. In R. H. Moos and P. N. Insel (Eds.) Issues in social ecology: Human milieus. Palo Alto: National Press Books, 1974.
- Gunzberg, A. L. Sensory experiences in the architecture for the mentally subnormal child. Journal of Mental Subnormality, 1968.
- Holahan, C. Behavioral effects of contrasting playroom seating arrangements: An experimental approach. Paper presented at the meeting of the Eastern Psychological Association, Boston, April 28, 1972.
- Ittelson, W. G., Proshansky, H. M. & Rivlin, L. G. Bedroom size and social interaction of the psychiatric ward. Environment and Behavior, 1970, 2, 255-270.
- Jacobs, A. M., Nichols, D. G. & Larson, J. K. Critical behaviors in the care of the mentally retarded. Vol II. Behavior of attendants. Pittsburgh: AIR, 1969.
- Kasmar, J. V., Griffin, W. V. & Mauritzen, J. H. Effect of environmental surroundings on outpatients' mood and perception of psychiatrists. Journal of Consulting and Clinical Psychology, 1968, 32, 223-225.
- Kay, B. R. The use of critical incidents in a forced-choice scale. Journal of Applied Psychology, 1959, 43, 269-270.
- Kiell, N. Emotional reactions: hostility, authority, and prejudice of pre-service teacher trainees. Clearinghouse, 1967, 41, 542-546.
- Knight, R.C. Research strategies for the social sciences: An integrative approach. Effects of the Living Environment on the Mentally Retarded Technical Report #4. Amherst, Mass: Institute for Man and Environment, 1976.



- Knight, R.C., Zimring, C.M. and Kent, M.J. Normalization as a social physical system. In M.J. Bednar (Ed.) Barrier-free environment environments. Stroudsburg, Pa.: Dowden, Hutchinson & Ross, In press.
- Larsen, J. K., Nichols, D. G. & Jacobs, A. M. Critical behaviors in the care of the mentally retarded. Vol I. Behavior of nurses. Pittsburgh: AIR, 1969.
- Mehrabian, A. and Diamond, S. Effects of furniture arrangement, props and personality on social interaction. Journal of Personality and Social Psychology, 1971, 20, 18-30.
- Mental retardation and the law. January 1974.
- Moos, R. H. Differential effects of psychiatric ward settings on patient change. Journal of Nervous and Mental Diseases, 1970, 151.
- Moos, R. H. Systems for the assessment and classification of human environments: An overview. In R.H. Moos and P.M. Insel (Eds.) Issues in social ecology: Human milieus. Palo Alto: National Press Books, 1974.
- Moos, R. H. The human context: Environmental determinants of behavior. New York: Wiley, 1976.
- Moos, R. H. and Insel, P. M. Issues in social ecology: Human milieus. Palo Alto: National Press Books, 1974.
- The nation's hospital and nursing homes, Editors. Carpeting improves psychiatric patients morale and safety. 1967, 3.
- Nilsson, S. G. and Anderson, B. E. Studies in the reliability and validity of the critical incident technique. Journal of Applied Psychology, 1964, 48, 398-403.
- Norris, D. The environmental needs of the severely retarded. Journal of Mental Subnormality, 1969, 28, 45-50.
- Osmond, H. Function as the basis of psychiatric ward design. Mental Hospitals, April 1957.
- Proshansky, H. M. Environmental psychology and the real world. American Psychologist, 1976, 31, 303-310.
- Ravensborg, M. R. Effects of ward change on behavior. Journal of Clinical Psychology, 1967, 25.
- Smith, P. and Kendall, L. M. Retranslation of expectations: An approach to the construction of unambiguous anchors for rating scales. Journal of Applied Psychology, 1963, 47, 149-155.
- Sommer, R. and Ross, H. Social interaction on a geriatric ward. International Journal of Social Psychiatry, 1965, 4, 128-133.



Appendix A - Interview Schedule for Direct Care Staff

Critical Incidents Study

Attendant Interview Schedule

Revised 7/1/75

I. Introduction

- A. Introduce Self: Hello, I'm \_\_\_\_\_, I work with the ELEMNR Project.
- B. Introduce ELEMNR: We're involved in a research project looking at the effects of the renovations on the residents. You might have seen our observers out here.
- C. Describe CI Project:
1. Have realized that direct care staff are the real experts in mental retardation, so have developed short twenty minute optional questionnaire.
  2. Have discussed this with the administration and with Mrs. Victory the Union President, and they support us in this effort.
  3. It is completely optional.
  4. We are interested in three positive incidents, incidents in which you think a resident did something good, something they should be reinforced for. Also, three negative incidents, etc.
  5. We need specific incidents, and we're not interested in names.
  6. We're interested in large or small incidents. Remember, we need specific incidents.
  7. In each case, we have to ask, "Why was this incident positive? or negative?" even though this may seem obvious. We want your opinion.

II. Request incidents: unstructured

- A. O.K., Can you think of any specific times when you saw a resident do something positive, something that they should be reinforced for?

(To interviewers: Remember to get context: Was the resident aggressive or passive? High or low level? These may influence interpretation of incidents.)

- B. Why was this positive? (We don't want why the Attendant thinks the resident did the behavior, rather we want the attendants' reasons for evaluating as positive).

REPEAT A & B UNTIL ATTENDANT SEEMS AT A LOSS FOR WORDS AND CAN'T BE "PRIMED".

- C. O.K., Can you think of any negative incidents, where a resident did something that you wouldn't want to reinforce? It can be either big or little.

- D. Why do you think this was negative?

REPEAT C & D UNTIL ATTENDANT SEEMS AT A LOSS FOR WORDS AND CAN'T BE "PRIMED".

- Sommer, R. Small group ecology. Psychological Bulletin, 1967, 67, 145-152.
- Wheeler, L. The office environment. Chicago: Interior Space Designers, 1969.
- Wolfensberger, W. The origins and nature of our institutional models. Syracuse, NY: Center on Human Policy, Syracuse University, Div. of Spec. Ed. and Rehabilitation, 1974.

III. Request incidents: structured

- A. We're especially interested in incidents which show that the resident learned something which you thought was good or which you hadn't expected, or a specific incident where a resident didn't know something or how to do something that they should have known.
- B. O.K., Can you think of any positive incidents showing that a resident knew something?
- C. Why was this positive?
- D. Negative Incidents?
- E. Why was this negative?
- F. We're also interested in grooming. Can you think of any positive or negative incidents involving dressing, toothbrushing, cleaning up, etc.?
- G. Positive incidents?
- H. Why positive?
- I. Negative Incidents?
- J. Why negative?

This list consists of two parts. Part One includes incidents that were reliably sorted into categories by .66 or more of all raters. Part Two is a numerical list of all remaining incidents.

Key: Incidents are listed as follows:

incident number, incident, rating by attendant: (mean/mode/SD)  
range: 1(very good) - 7(very poor)

Part One: Incidents reliably sorted into categories

I. Adaptive Skills:

A. Personal Care

1. Medical-Health

- 91 R. has been sick, but never complains at prodding or probing by the doctor. Today she was told she has to go to the hospital. She cried a little, then said she wanted to go as soon as possible to get well. (1.9/4/1.05)
- 92 R. was very sick and the doctor had to give him a shot. R. was afraid, but didn't fuss or complain. (1.7/1/1.2)
- 151 R. came into office and showed RN a splinter in her hand. (1.4/1/.73)
- 192 R. had a rash and brought it to the Att's attention before it got too bad. (1.1/1/.3)
- 198 This morning, R. tried to hide her pill after taking it out of her mouth. (6/6/.71)

2. Toileting

- 17 R. brushed his teeth and folded blankets without being asked. (1.1/1/.3)
- 123 R. doesn't want to get up out of bed and urinates in bed just before getting up. (6.7/7/.5)
- 245 R. went to the bathroom. There was no toilet dispenser so he wiped himself with his hand. (5.2/5/1.48)
- 270 R. was rewarded constantly and she urinated on the floor. (6.8/7/.44)
- 347 R. was led to the toilet where he defecated and urinated. (1.7/1/.87)



## 3. Eating

- 18 R. always has to be coaxed to eat all her dinner, but last night she ate it all without being asked. (1.7/1/1.6)
- 33 R. likes to play with her food. Last week, at a picnic outside, she kept throwing her food on the ground and stomping on it. (6.9/7/.3)
- 177 R. picked up cigarette butts and ate them. (7/7/0)
- 190 R. pulls fuzz off blankets and eats it. (6.6/7/.53)
- 191 R. pushed away from the table and threw down her spoon, bowl, cup, etc. and all of her hash and cole slaw. (6.7/7/.71)

## 4. Care of Personal Belongings

- 271 R. just sat there in the bathroom and fooled with elastic band on her underwear until she tore it. (5.9/5/.93)

## 5. Dressing

- 39 When asked by an Att. if she wanted to wear a particular dress, the R., who hadn't spoken in at least 3 mos., responded by saying "yes". (1.1/1/.3)
- 65 R. use to be real violent, would flair up everyday when she became angry because she couldn't tie her shoes. Now she tries to tie her shoes and is not successful but is much mellower. (1.9/2/.78)
- 248 A R. dressed herself. (1.2/1/.67)

## 6. Washing-Grooming

- 19 R. washed & dried himself without being asked to do so. (1.8/1/1.7)
- 101 R. combed own hair without being asked. (1.4/1/.72)
- 141 Two R's, who constantly soil themselves, one who grabs and plays with his feces, went on a field trip and they both stayed clean all day, which was very unusual. (1.2/1/.44)
- 171 R. put on perfume before going to school. (1.9/1/.89)
- 184 R. liked to be kept clean, so he asked to be shaved. (1.4/1/.73)
- 193 R. afraid of shampoo. Att taught R. to close eyes and Att could wash his hair. Now R. does it by himself. (1/1/0)
- 202 R. was given a new toothbrush and he lost it, like he does everyday. (5.8/6/.71)

- 220 For years, in the shower, R. would place face cloth perfectly on head or arm and then just pull it down to wash. Att went in one day and washed one arm of R., then told R. to wash other arm the same way. R. did it. (1.3/1/.5)
- 286 R. without being told to or paid, went around untying and washing the trays of the R's in wheel chairs after meals. (1.9/1/1.27)
- 333 R. came in office and asked RN for toothbrush after dinner instead of waiting until 8 o'clock when everyone does it. (2.9/3/1.27)

#### B. Upkeep of Shared Living Space

- 35 R. I will clean up floor if another R soils the rug. R. I does it on her own. (6.9/7/.3)
- 36 R. made all beds in ward without being asked. (1.3/1/1)
- 37 R. straightens out chairs in dayhall. This is a habit R. has. (2.2/2/1.2)
- 90 R. picked up things around ward. (1.6/1/.73)
- 361 R. made all the beds in his ward, because he wanted to do it. (1.4/1/.79)

#### C. Thinking/Learning/Knowing

- 5 R. plays accordian for a party and plays 25 tunes well. (1.3/1/.7)
- 9 A while ago, a Catholic R had a visit from her family's priest. The R. (who is not too smart) knew what the Rosary and Bible were. (1.6/1/.73)
- 64 A dog went walking by and R. started chattering "doggy, doggy." (1.4/1/.78)
- 66 R. listens to radio and TV. When Patty Hearst was captured she came up to Att and talked about her. (1.5/1/.53)
- 116 R. traced and colored pictures of animals, named what she traced. (2.2/1/1.4)
- 117 R. colored within the lines of coloring book. (2.3/1/1.5)
- 120 Today the radio was on. Suddenly, R. began to sing along with a song. (1.7/1/.87)
- 121 R., watching cars going by, named all the different colors. (1.6/1/.74)
- 122 At soda time last week, one R. knew what kind of soda she was given. (1.9/1/.83)

- 313 R. does acrobatics. He runs and jumps in the air, and lands on his back like a judo fall. (4.6/4/1.06)
- 334 R. stood a block on his thumb and forefinger, blew on it until it spins around, then balanced block on his thumb while it spins. (2.6/4/1.51)
- 379 R. broke off a branch, and used it to lower another branch to be broken off. (4.2/4/1.85)
- 388 R., who always ate with his hands, has learned to eat with fork and spoon, and he understands the difference between the two utensils. (1/1/0)
- 391 R. has favorite stuffed toy. Yesterday, ear was torn off by mistake. R. took needle and thread and patiently sewed it back together. (1.3/1/.71)
- 393 Att. took R. home to Att's apartment. It was dark and R. knew how to turn on lights even though the switches were different from those in her home building. R. had to push buttons and knobs to turn on lights. R. also knew how to turn on faucets. (1.6/1/.73)
- 402 Att. told R. to get out of the way of a car, but R. didn't understand and walked out into traffic. (6.3/7/1.1)
- 403 A psychologist gave R. a puzzle, and R. put it together very fast. (1.6/1/1.13)
- 404 R., who has many broken things (TV's, radios, etc.) and tries to fix them, was asked by a R. to go to L Bldg. and to look at another R's stereo. He fixed it without help. (1.6/1/.79)

## II. Personality/personal style

### A. Initiative in starting and completing activities

- 55 R. kept asking Att. to clean R's fish tank. Att. told him "you know how to do it, don't you?" R. answered "yes" weakly, so Att. told him to do it himself. R. didn't think he could but tried and did a good job. (1/1/0)
- 115 R. worked very hard on completing puzzle, did it on his own. (1.1/1/.33)
- 116 R. came into the office and asked an Att. for a needle and thread to sew a button on her blouse. (2.2/1/1.4)
- 167 In the dayhall Rs were undressing for showers. One R. began picking up the clothes and putting them in laundry bags. (1.3/1/.49)

- 232 R. saw trash can was full and emptied it. (1/1/0)
- 401 R. sat in chair doing nothing. Then she tried to lace her shoes successfully. R. laced them from the beginning, which was very intricate work. (1/1/0)

#### B. Enthusiasm

- 225 R. came home from school with a round circle she colored, showed it to an Att, and wanted it hung on wall. (1.6/1/.74)
- 20 R. was very excited about a picnic. About 1 hr. before the picnic, R. put on her sweater and sat by the door. (2/1/1.3)
- 68 R., who isn't well coordinated, was just standing around. Att. offered him a chance to play kickball. R's eyes lit up and he was very enthusiastic. He got right into it. (1.2/1/.44)
- 145 When a student volunteer arrived, R. ran over to show the volunteer her new clothes. (2.4/1/1.62)
- 136 Att entered dayhall. An R. came up to the Att and showed the Att his bed, bath, and shower in a very enthusiastic manner. (2.1/4/1.3)
- 331 R. was looking forward to going to ALC (Adult Learning Center). (1.8/1/.97)
- 332 Rs go to Boy's Club and come back and excitedly tell what they did. (1.7/1/.86)

#### C. Persistence in tasks

- 94 Atts. wanted R. to go outside. R. refused and grabbed onto bed. (5.7/6/.86)
- 98 Yesterday, R. complained to Att. about aches and pains. R. does this often but was especially bad last night. Wouldn't leave the under-staffed Atts. alone. (5.2/5/1.3)
- 108 Att. asked R. to make her bed but the R. told Att where to get off. The Att tried to persuade her but it never got done, so the Att made the bed. (6.1/6/.78)
- 113 All R.'s have to be around the building by 9 PM. One night R. left at 9 PM, no one could stop him, he refused to take his pill. R. broke into another building and wouldn't come back unless unit psychologist went to see him. He got his way. (6.6/7/.74)
- 114 R. tries to ride bicycle despite fact he has physical disability. (1.9/1/.92)



- 213 Outside on the playground, R. kept taking her clothes off. (6.5/7/.76)
- 218 R. folded and put away clothes under supervision for an hour without stopping. (1.6/1/1.13)
- 234 R. has frozen wrists and poor motor coordination. R. strung a bead necklace, which was very difficult and took one hour, then gave it to an Att. as a gift. (1.2/1/.44)
- 250 R. ripped her dress because she didn't want to go outside. (6.6/7/.53)
- 303 Att. took three Rs on a walk. One R., who never goes anywhere, she hates stairs, feels she'll fall. At 6" slope she'll sit down to cross; the Att. was surprised where R. went. R. walked along over slopes through brush and thicket, etc. When they got to real thick stuff, R. ran into brush up to waist. R. refused to come out and threw her shoes away. (5/5/1)
- 309 R. was moved 3 days before. She refused to eat at breakfast when asked by an Att. (4.6/5/.89)
- 337 R. has a job. Last week she felt sick, but didn't want to come back and lie down. (3.6/4/1.24)
- 406 Almost every night R. tries to climb into bed early, even though Atts. don't want her to. (4.3/4/1.25)

D. Awareness of other people/social manners

- 24 R. exposed herself to men and was foul-mouthed. (6.9/7/.33)
- 31 Att. took a group of Rs to the movies and to a drugstore for ice cream. The Rs were extremely well behaved, all said thank you when leaving. (1.1/1/.3)
- 42 R. acts like a baby a lot. They were short of help one day and were at the cafeteria - R, without being asked, went over and helped a group of Rs that were having trouble picking out the proper silverware. (1/1/0)
- 106 R. masturbated in public. (6.1/7/1.2)
- 143 R. 1 tried to correct R. 2, who grabbed butter. (2.7/1/2.35)
- 176 Usually withdrawn R. became very excited about going to circus. She ran around chattering and took more time getting dressed. (1.6/1/.79)
- 199 R. talks and waves hands wildly. (4.2/5/.97)

- 208 Tonight R. 1 was looking at a magazine. R. 2 came over and both looked at the magazine together, the first explaining things to the second. (1/1/0)
- 212 R. lay on floor and banged his head. (6.9/7/.33)
- 255 An Att. has had a lot of trouble communicating with a R. in any way at all. Finally one day the R. came up and sought the Att. (2.5/1/2.3)
- 282 R. sat in corner and scolded people. R. hit table and made physical gestures with her hands. It was a game where R. tried to fool Att. who mimicked her gestures. If she couldn't fool you she laughed and left. (4.5/4/1.13)
- 375 R. masturbated with a basketball in middle of dayhall. (5.9/6/1.05)

#### E. Self-aggression

- 110 R. pulls hair out of her head for no good reason. (6.8/7/.67)
- 112 R., at 3:00 every day, strips off her clothes. (6.6/7/.74)
- 135 Monday, Att told R. he couldn't play his record, so R. banged his head against floor. (6.6/7/.52)
- 140 R.1, who is very moody, has temper tantrums. has a great deal of mobility problems (fat and troubled legs), was in a room playing records with 2 or 3 other Rs. R.1 lived in a different bldg. R. 2 wanted to watch TV. R. 2 lived in the bldg. and she could not get around too well. Decision was made that the record player people would move and would go elsewhere because they had the stereo too loud. R. 1 freaked out and kicked something so hard she broke some bones in her foot. (6.2/7/1.09)
- 161 When R. came back from hospital she picked her head until it bled. Finally, she was put into a chair that was bolted to the floor. (6.1/6/.69)
- 300 R. bangs her head on anything, will scratch an Att. (6.9/7/.0)
- 326 R. has skin trouble. Today, she scratched until her skin was raw even though Atts. and Drs. tell her not to. (6.75/7/.46)
- 349 R. ate feces and smeared himself with it. (7/7/0)
- 350 R. screamed and slapped his own face when not given something to drink immediately. (6.7/7/.5)
- 354 R. painted himself with feces in the sleeping ward. (7/7/0)

- 355 R. banged head against the wall in the dayhall, causing an injury. (6.9/7/.3)
- 370 R. 1 slapped himself after being provoked by another R. (6/6/.86)
- 389 R. couldn't be toilet trained, but now R. uses toilet paper if there is some near, and R. pulls own pants down. (1.1/1/.33)

### III. Interactive style

#### A. Boldness/assertiveness/stubbornness

- 11 R. who likes dirty clothes, hid them in his dresser. An Att. tried to take them. To stop the Att. the R. turned dresser around against the wall and put a chair against it. (6.2/7/.83)
- 124 Two R's, boyfriend and girlfriend, work in the kitchen. When one isn't there, the other is very unconstructive, refuses to work and gets very edgy. (5.5/5/1.05)

#### B. Helping/cooperation/sharing

- 1 R. rinses toothbrush for handicapped R. when asked. (1.4/1/.73)
- 2 R. was playing frisbee with another R. (R2), who can't walk well and has poor coordination. R. 3, who wasn't playing, went to get the frisbee and brought it back whenever R. 2 missed it. (1.3/1/.50)
- 4 In dayhall on a rainy day, R. offered to share her radio with the others. (1.2/1/.50)
- 43 R. tied shoes of crippled R. when asked by Att. (1.2/1/.44)
- 44 R. tied other Rs shoes - did it on his own initiative. (1.3/1/.71)
- 45 R. 1 waits for R. 2, who is deaf and blind, and walks her to dinner. (1.1/1/.33)
- 53 R. 1 brings R. 2 on request from nurse, so that R. 2 can take medicine, then R. 1 brings R. 2 back downstairs. (1.2/1/.44)
- 61 Shy R. 1 wanted a record player. Att. got the funds and she went into town with another Att. and bought record player herself. She isn't selfish about it and shares it all the time. (1/1/0)
- 62 R. 1 holds hand of R. 2 who is new to building and takes her to meals. (1.4/1/.73)
- 63 R. noticed that the dayhall TV wasn't working so he took in his TV for everyone to watch. (1.1/1/.3)



- 67 R. made another R's bed when asked by Att. (1.8/1/1.09)
- 71 In the morning, when an Att. was making a bed, R. came over and tried to help. (1.3/1/.5)
- 73 R. 1 doesn't like R. 2. R. 1 walked by R. 2, causing R. 2 to scream at piercing pitch. (6.1/6/.78)
- 88 R. 2 had sores on her arms and she always picked the scabs. R. 1 notices R. 2 was all bloody so R. 1 brought R. 2 into the office for a treatment. (1.4/1/.53)
- 96 When R saw someone lighting up a pipe or cigarette, she brought over an ashtray. (1.4/1/.73)
- 97 R. offered to carry briefcase and set up chairs for Att's meeting. (1.4/1/.52)
- 100 R. delivers books to supply house when asked. (1.3/1/.52)
- 111 R., who separates the laundry and gets paid for it, refused to do it one night. Att went to talk to her and she said the only way she'd do it was if Att gave her a pack of cigarettes. Att refused and R. ended up doing her job anyway. (3.3/3/1.2)
- 144 One R. has very hard time eating (severely handicapped). One night last week, Atts. were shorthanded, so R. 2 helped R. 1 eat dinner. (1.1/1/.35)
- 196 R. helps bathe and clothe children who can't, acts on own initiative. (1.2/1/.67)
- 254 R. returned keys to Att. when Att. left them in door. (1/1/0)
- 256 R. 1 pulled away R. 2 who hit Att, asked if Att was all right. (1.6/1/.88)
- 279 Att requested R. to help her take off the shoes and socks of other Rs during bed time. R. is on a stipend and always helps. (1.4/1/.73)
- 296 R. 1 got all upset because he wanted to take clothes out of a dresser and Att. asked smarter R. 2 to do it. When the Att. asked R. 1 to do it, he refused and pushed Att. away. (4.8/3/1.56)
- 307 R. refused to take dishes from the dining room to the kitchen when asked. (4.6/6/1.62)
- 317 R. was talking in hallway with an Att. The Att. asked her to help with laundry and she helped in the laundry and clothes room. (1.5/1/.53)



- 319 R. likes to help the Att. do things. Today she helped wash the other Rs. (1.4/1/1.01)
- 321 R. knows that the Atts. like to (illegally) smoke in his room, so he hides an ashtray for when they come down. (3.8/2/1.72)
- 343 R. came when called by Att. to supper. (1.5/1/.76)
- 384 R. puts dishes together in a pile at the table. (1.9/1/1.17)
- 395 R. 1 was having a hard time, so Atts. couldn't take R. 2 to bathroom for a long time. R. 2 never complained. (2.7/1/1.87)
- 399 R. is always very fussy about food. Last week she agreed to eat all her meals with very little persuasion. (1.3/1/.5)

C. Affection/warmth

- 8 R 1, who has always been very withdrawn, today went to R. 2 and hugged her for no apparent reason. (1.4/6/.73)
- 85 R. caressed and talked to another R. (2.2/1/1.39)
- 86 Rs were teasing and then they hugged each other. (2.3/1/1.41)
- 174 R. always very affectionate towards a special Att. Today she gave the Att a picture she'd made in school. (1.8/1/1.09)
- 178 When R. 2 was kicked by another R, R. 1 went up to the injured R. 2 and tried to comfort her. (1.25/1/.46)
- 231 An autistic R. hugged an Att who had been working with him for many months. (1/1/0)
- 289 R. sensed Att. didn't feel well and asked how she felt. (1.2/1/.67)
- 318 R., usually not cooperative, became very attached to one Att. Last night, she started to help an Att. do chores around ward. She never helped anyone before. (1.4/1/.88)
- 323 R., who is usually emotionally flat, smiled while Att. helped her get ready to go out and visit parents. (1.6/1/1.01)
- 329 R. sang happy birthday over intercom. (2.6/1/1.51)
- 335 R. has a stuffed toy. At night, she is quiet in bed, cuddling with it. She goes right to sleep with no fuss. (2.1/1/1.17)
- 381 R. pointed to empty bed of transferred friend, cried and asked "Why?" (2.3/2/1.03)
- 394 R., who used to swear and insult an Att., came up to her and said, "I miss you and I want to come back" (she had been moved to another bldg.) (2.2/1/1.48)

## D. Anger/threat/verbal animosity/upset

- 10 Some R.'s were screaming before bedtime. R. 1 got upset and tipped beds over. (6.4/6/.52)
- 21 R. 1 screamed at other R., bothering that R. No one was bothering R. 1 at the time. (5.9/7/1.6)
- 28 When R's steal R. 1's tobacco, R. 1 gets mad and throws chairs. (5.8/5/.83)
- 38 Today an Att. dressed an R. as usual. The R. hugged the Att. to thank her. (1.7/1/.87)
- 105 R., mad that someone stripped her bed, turned it over in anger. (5.9/6/1.3)
- 107 Nurse tried to give R. pills last night, but R. threw them on floor. (6.1/6/.78)
- 125 R. blew nose on napkin and gagged herself, then swore. (5.5/5/.93)
- 128 R. has special program he likes on TV. One night, TV was broken. The R. made a big fuss. (5.4/6/.72)
- 137 Last night in bedroom, R. threw tantrum on floor when Att made her sleep in her own bed. (6.4/6/.53)
- 134 R. was in dining room and was told she couldn't have 2 slices of bread because she's on a diet and her whole meal was in front of her. She started screaming and yelling, got out of her chair, crawled across the floor to the garbage can, took bread out and started eating it. (7/7/0)
- 139 R. was sitting in the hallway by herself, and spontaneously started yelling, swearing and name calling. (6.3/7/.87)
- 252 R. became so preoccupied with his bundle of papers and junk that he didn't eat supper, which forced Att. to take bundle away. R. then caused a disturbance. (6/5/1.0)
- 274 R. gets really upset when R. 2 (a close friend) goes home for a visit with her family. R. 1 cried and stomped her feet for one-half hour. (5.6/4/1.27)
- 302 A charge came to work from another building. R., who doesn't like the charge at all started crying, stomped up and down, bit herself in the arm, and banged windows. (6.0/5,6,7/.86)
- 310 R. wouldn't get in line for dining room, and said "I hope you'll die." (5.8/7/1.09)

- 327 R. 1 lost her barrette. When Att. didn't give her another one (the Att didn't have one), R. 1 yelled, kicked, threw chairs at Rs. R. 1 had a tantrum that lasted for hours. (6.7/7/.5)
- 342 R. ripped toilet off the wall with his bare hands. (7/7/0)
- 345 Low functioning R. called Att. H....., the name of grossest R. on grounds, when he became upset. (4.8/5/1.49)
- 356 R., ejected from dayhall for causing a disturbance, bit another R. on the arm. (1.8/7/.44)
- 363 R. broke a window when told by an Att. that he couldn't stay out in the yard. (6.9/7/.33)
- 365 R. smeared his feces when agitated with Att. (6.7/7/.71)
- 377 R. hugged and kissed another R. when he was feeling upset. (2.9/1/1.83)

E. Physical aggression against other people

- 6 R. took toy away from R. 2, so R. 2 scratched first until she bled. (5.8/7/1.99)
- 30 R. 1 pulled all the cuticles out of R. 2's fingers. R. 2 never complained because of fright. Happened twice before R's got separated. (6.3/7/2)
- 32 R. went over to 2nd R. and punched her because she was jealous of 2nd R's new toy. 2nd R punched her back. (5.7/5/1.3)
- 34 R., who had dinner thrown on him, beat on person who did it. (4.8/5/1.2)
- 40 In the midst of commotion, a R. yelled and tried to hit others. (6.2/7/.83)
- 76 R 1 wanted to swing, so she pushed R 2 off the swing. (6.6/7/.72)
- 81 R., who was depressed over being moved to her present building began to ignore Att. One day she started hitting Att when the Att tried to get her to change clothes. (6.6/7/.52)
- 82 R was being punished, so her radio and box were taken away. R. threw wastepaper basket and chair at everyone in day hall. (6.7/7/.71)
- 83 One R. is a bully, always bossing the others around. Yesterday he tried to bully a 2nd smaller R. in a wheelchair, so 2nd R ran over his feet. (3.3/1,4/2.06)



- 84 While on a walk, R. 1 started hitting R. 2 for no apparent reason. (6.7/7/.49)
- 99 This morning R. got mad and tried to ram Att. with her wheelchair. (6.4/6/.52)
- 127 R. was sitting in back seat of car. Suddenly, she choked the driver in front of her. (7/7/0)
- 133 When Att tried to take back stolen things, R. threw chairs and hit other R's. (7/7/0)
- 157 R. went off and hit other R's and pulled their hair. (6.9/7/.33)
- 158 When everyone was in bed, Att heard a noise in bedroom, so she went in. R. 1 went over and hit R. 2, who was sound asleep in a bed nowhere near R. 1's. (6.8/7/.44)
- 185 R. 1 was digging his nails into R. 2's neck. Finally Att came when R. 2 called him. (6/7/1.55)
- 187 Att. walked into dayhall, saw R. 1 pulling R. 2's hair for no apparent reason. (6.2/7/1.09)
- 253 Att. was holding down a R. Another R. came over and bit the Att. on the hand. (6.5/7/.76)
- 264 When Att. finally succeeded in getting R. up, R. went after other Atts and Rs, digging and scratching them. (7/7/0)
- 294 On the way home from a field trip, R. (for no reason) hit an Att. in the head, then pulled a whole chunk of hair out of the Att's head. (7/7/0)
- 295 R. was combing an Att's hair. When finished, grabbed Att by the breasts and marked them up. (7/7/0)
- 297 R. threw an apple at the porter when he picked it up for her. (5.8/7/1.60)
- 304 R. 1 went up to R. 2 outside and smacked her for no good reason. (6.8/7/.67)
- 305 Att. asked R. to take her clothes off to shower, R. refused and pulled the Att's hair. (6.9/7/0)
- 338 High-functioning R. 1 hit low functioning R. 2, whom he greatly dislikes. (6.6/7/.53)
- 348 R. slapped another R's face and ear when upset by that R. (5.7/5/1.12)
- 372 R. 1 grabbed another R's arm and bit it. (6.7/7/.71)



- 382 R. hit another R. for no apparent reason right before going to night school. (6.6/7/.73)
- 400 Att. shut off TV in dayhall. R. screamed and threatened to hit the Att. on the head with a chair. (6.7/7/.6)
- 407 Att. was trying to find out who took his tobacco (two R's always steal it because they get mad at him). When he asked a R. he suspected, R. threw his shoes at the Att. (6/5,7/.93)

F. Outgoingness/interaction and activities participation

- 281 When an Att began doing a puzzle, 2 R's ran over and tried to help. (1.9/1/1.27)
- 322 There is an R. who doesn't socialize, but just sits and never speaks. An Att. asked everyone who wanted to go to night school and explained the things being offered. R. spoke up and said she'd like to go for recreation. (1.3/1/.71)
- 336 R. played guitar for other kids, and started sing-along. (1.2/1/.67)
- 352 R. played "ghosts" with another R. in recreation yard after supper. (1.7/1/1)
- 368 R. played tag with other R. in yard. (1.4/1/.73)
- 378 R. played catch with another R. (1.7/1/.87)
- 392 R. asked Att. if she was going out tonight with Boltwood people. Att. said yes. R. remembered program -she likes to go out and remembered when Boltwood came. (1.6/1/.88)
- 405 A very withdrawn R., who never talked or participated in things, was moved. She now plans games and talks a lot more. (1.3/1/.52)

G. Respect for others' rights/property

- 15 If nightgown doesn't fit, R. will try to put it on anyway. R. took nightgown off of another R. by unzipping it, then wore it. (5.2/5/1.3)
- 27 R. had tobacco. He bothers other people, so they stole his tobacco. (4.9/5/1.2)
- 75 R. 2 is very quiet, so R.1 always tried to take advantage of her. Today, R.1 took away R 2's dessert at lunch. (6.1/5/.93)
- 153 R. took clothes of other R. and hid them under her mattress. (6.1/6/.69)
- 159 R. stole things from other R. When caught, she insisted things were hers. (6.3/5/1.25)

- 241 R. took other people's clothes and put them in his room.  
(5.9/6/.9 )
- 284 Little things like cigarettes and lighters had been disappearing from Atts and visitors. One day they were found in R's bureau - she had been stealing them. (6.7/7/.50)
- 306 R. stole books from an Att. and put them in the R's drawer.  
R. also steals dirty sheets and underwear. (6.4/6/1.01)
- 359 R. gobbled his own food, then stole another's. (6.5/7/.53)

#### H. Dependence

- 262 R. screamed and flailed arms when not attended to right away.  
(5.8/7/1.5)
- 346 R. put his clothes on by himself. (1.1/1/.35)
- 351 R. completely soaped himself before entering shower following several months of encouragement in self-help skill.  
(1/1/0)
- 386 Att. was showering R. R. was standing directly opposite towels, with Att. much farther away from the towels. R. asked Att. to get the towel for him. (4.2/5/1.86)

#### Part Two: Incidents not reliably sorted, in numerical order

- 3 2 R.'s both swinging, were having trouble going high, so 3rd R. went over and pushed them.
- 7 R., middle aged, spent lots of time with family, but hasn't seen much of them in past year (mother's sick, father's busy). She is violently aggressive towards others or she ignores others completely. R. wouldn't do anything - brush teeth, etc. She was enrolled in day camp for summer. 1st 2 days she refused to go. After begging, threatening, pleading, Att. finally told her - "they're coming in morning, if you aren't ready, the hell with you." In the morning, resident was ready and has gone everyday since.
- 12 Today, for first time, R. straightened up his own clothes to surprise the Att.'s.
- 13 R. "painted" herself with her defecation.
- 14 The R. was negative all afternoon. When an Att. encouraged R. to take bath, R. ripped shirt and destroyed his own dress pants. There was no precipitation, it was out of the blue.
- 16 In bedroom, R. (went to the bathroom) while sitting on a chair.

- 23 To get attention, a R. spits in another's face.
- 25 R. is very annoying - always pestering Att's and other Rs, following them, etc. Finally, today, 2nd R. belted her.
- 26 R. 1 has a boyfriend who comes to visit. Last night when he talked to another R, R. 1 kicked him and ran away.
- 29 R. smashed door just to be destructive and to aggravate people.
- 41 R. came from a moderately high level building and doesn't converse any more. Also, she has to be changed after every meal. When she was asked by Att. to change, she took off her shirt and went out into the hallway.
- 46 This morning for first time R. put on her own shoes and socks. Always before an Att. had to do it.
- 47 R. is learning to make her own bed - did it for first time alone today.
- 48 R. 1 has servant (R.2). R. 2 does all R. 1's chores. R. 2 got chocolate bar at Sunday School. When R. 2 returned to building R. 1 was waiting at door. R. 2 gave R. 1 the chocolate bar. This is done under cover.
- 49 R. 1 helped R. 2 get cleaned up for breakfast by showing her how to comb her hair and neaten her things.
- 50 When one R. couldn't swing, 2nd R. went over and pushed the first.
- 51 R. 2, who has a good record collection, was upset because his collection was in another building. R. 1 went over to get them in the rain, put them in a cart, and brought them back.
- 52 R. 2 was sick in bed with cramps, so R. 1 went over and talked to her and tried to cheer her up.
- 54 R. voluntarily served snacks and cleaned up afterward.
- 56 R. set table in dining room without being asked.
- 58 R. 1 followed R. 2 around, jealous of the fact that R. 2 goes home.
- 59 Upstairs in men's ward R. 2 refused to go to work. R. 1 went over to R. 2 and encouraged him to go. R. 1 didn't want to go to work but with coaxing from a peer, R. 2 finally went to work.
- 60 2 normally withdrawn Rs sat and tried to figure out puzzle together and they completed it.



- 69 R. had been running around bothering everyone. When Att. turned on the TV, R. sat down and behaved.
- 70 Att. gave a towel to a normally nonverbal R., R. replied "thank you."
- 72 Everyday R. takes a basketful of diapers to her bed. She feels the diapers will absorb the urine.
- 74 One R. hit another R. outside when her toy was taken away.
- 77 R 1 called R 2 quite a few names. R 2 got mad and hit R 1 with her shoe (it took 4 people to hold R 2 back).
- 78 R: sat in hall doing needlework.
- 79 Att. walked by and noticed a girl and guy sexually horsing around in the guy's bedroom.
- 80 R 1 scratched R 2 because R 2 moved in front of her in dining line.
- 87 R. talked to another formerly withdrawn R., and they became friends.
- 89 R. went and got another R. when asked.
- 93 Today a usually cooperative R. refused to let Att. take off a band-aid. She made a big fuss, even though Att. explained it had to come off.
- 95 R. slaps the bedboards (at the head of the beds). R. walked behind three beds and hit them with the palm of her hand.
- 102 Last night, R. snuck out of her room in her wheelchair and went down to the children's ward. When Att. went after her, she came back without a fuss.
- 103 R., who works in the kitchen, pounded continuously on the door because she couldn't get in at the time she wanted.
- 104 R. went downstairs to the basement, climbed through doorway on top of a heater. The heater got hot and the R. started yelling and an Att. finally pulled him out. He was cut and had 5 sutures in his arm. The R. did it to get the Att. mad.
- 109 Att. was trying to play ball with a group. One R. kept throwing ball into the woods, not to be mean, just to get attention. She was giggling and laughing.
- 119 Att. said "bring your shoes and let's put them in your box" (cubby). R. said she knew where to put them and put them in the right cubby.
- 126 This morning R. was very stubborn about taking a pill. She refused to take it.



- 129 At a party for an Att. last week, R. refused to sit quietly at the table and sing "Happy Birthday." She kept running around the room.
- 131 R., for some reason, feels that the Atts don't like him, so he throws his coat on, screams "I'm going to another bldg." Att. says "OK" and R. doesn't leave.
- 132 R. would say that she's sick, but nobody would visit her. Att. tried to help her by talking to her, but R. wouldn't listen and banged her head, tore her clothes, attacked people, kicked furniture and TV's.
- 138 R. turns rag over and over in her hand. R. needs the rag and does it anywhere in building.
- 142 R. wanted attention so he asked to be showered.
- 147 R. was outside and wouldn't tell the Att. when his pants were soiled.
- 149 R. has been having trouble being toilet trained. Today, outside, she asked to go in to the bathroom.
- 150 Last night in dayhall, Att. went over to change TV channel. R. put up a fuss, even though other Rs wanted to watch a different program.
- 152 R. has many nice things from parents. She likes to tease others who have less. Last night she made two Rs cry.
- 154 Last week, R. went out for the day with her mother. When R. returned she was very moody and wouldn't associate with the others all day.
- 156 R. l puts R's to bed like a mother. R. l undressed R's.
- 160 R's were watching TV last night. R made a big fuss - kicking and screaming - so others couldn't watch.
- 162 R. really likes male LPN and found out it was his birthday. Went downtown with an Att. and bought him a card, a present (pen and pencil set), and some wrapping paper and a bow with her money from working. She got real excited.
- 163 R. had favorite blanket that finally got so dirty that Atts. had to throw it away. R. put up big fuss (screaming, scratching, etc.).
- 164 R. doesn't like vegetables. Today, at lunch, an Att. asked the R. to eat vegetables "just for her," and the R did.
- 165 R. was very depressed for awhile after a certain Att. quit. Today she went up to another Att. and hugged her for the first time.

- 200 R. thinks she's dying for no reason. Today, when she saw the doctor, she started to scream when the doctor told her nothing was wrong.
- 201 R. 1 screamed when another R. 2 went upstairs dressed in clothes instead of bed clothes; she was tattletale.
- 203 R. doesn't like to take a bath. Last night he kicked and screamed at bath time.
- 204 R. puts fingers up her nose to the big joint on her finger.
- 205 R. 1 leaves her shoes on the bedroom floor. R. 2 picked up shoes and put them away (on her own).
- 206 R's father came to visit and R introduced him to Atts. and to other Rs.
- 207 Playing jump rope outside, R. 1 is the best rope swinger. She kept swinging so everyone could jump and never complained.
- 209 An Att. took a group of Rs for a walk. R. 1 usually makes trouble. Today she walked quietly, holding hand of another R.
- 210 R. 1 has a stuffed toy she really loves. One day R. 2 was feeling sick and R. 1 went over and gave her the toy.
- 211 R. refused to go on merry-go-round and climbed into someone's car.
- 214 Att. asked R. to take off shoes and socks. R. refused. The Att. repeated the request. R. laughed and left (R. won't take her own clothes off).
- 215 R., who normally doesn't like to change her clothes, didn't give a hassle. When asked, she changed her clothes.
- 216 R. tied knots in her shoe laces. R. was sitting in a chair and flipping laces together by twirling them.
- 217 R. brought his tray to the kitchen on his own, and asked to bring other trays in.
- 219 When R. first came to L. bldg., she washed and dressed herself and did quite well. Now R. stands in the shower until someone washes her and then stands naked in the bedroom until someone dresses her.
- 221 R. used to wash only his genitals and underarms. Now R. washes his face, chest and legs.
- 222 Att. took R. home with her, and they were sitting around the living room talking. R. was exploring the house. R. picked up a dictionary, leafed through it and named each big letter as she passed it.

- 200 R. thinks she's dying for no reason. Today, when she saw the doctor, she started to scream when the doctor told her nothing was wrong.
- 201 R. 1 screamed when another R. 2 went upstairs dressed in clothes instead of bed clothes; she was tattletale.
- 203 R. doesn't like to take a bath. Last night he kicked and screamed at bath time.
- 204 R. puts fingers up her nose to the big joint on her finger.
- 205 R. 1 leaves her shoes on the bedroom floor. R. 2 picked up shoes and put them away (on her own).
- 206 R's father came to visit and R introduced him to Atts. and to other Rs.
- 207 Playing jump rope outside, R. 1 is the best rope swinger. She kept swinging so everyone could jump and never complained.
- 209 An Att. took a group of Rs for a walk. R. 1 usually makes trouble. Today she walked quietly, holding hand of another R.
- 210 R. 1 has a stuffed toy she really loves. One day R. 2 was feeling sick and R. 1 went over and gave her the toy.
- 211 R. refused to go on merry-go-round and climbed into someone's car.
- 214 Att. asked R. to take off shoes and socks. R. refused. The Att. repeated the request. R. laughed and left (R. won't take her own clothes off).
- 215 R., who normally doesn't like to change her clothes, didn't give a hassle. When asked, she changed her clothes.
- 216 R. tied knots in her shoe laces. R. was sitting in a chair and flipping laces together by twirling them.
- 217 R. brought his tray to the kitchen on his own, and asked to bring other trays in.
- 219 When R. first came to L. bldg., she washed and dressed herself and did quite well. Now R. stands in the shower until someone washes her and then stands naked in the bedroom until someone dresses her.
- 221 R. used to wash only his genitals and underarms. Now R. washes his face, chest and legs.
- 222 Att. took R. home with her, and they were sitting around the living room talking. R. was exploring the house. R. picked up a dictionary, leafed through it and named each big letter as she passed it.



- 224 R's mother came for a visit and brought her a toy. After her mother left, the R. tore the toy apart.
- 223 Everytime an outsider comes, R. grabs onto them right before they leave, grabs their hair and hugs them too tight.
- 226 Today a R. wandered away - Atts. didn't notice because they were shortstaffed, so R. 2 went and brought her back.
- 227 In cafeteria R. 1 has a hard time handling her tray, does a lot of spilling. She also daydreams during the meal. Male R. 2 came over, carried her tray for her, sat down at table with her and encouraged her to eat.
- 228 A couple of Atts. were trying to restrain a violent resident. Another R. came over and helped them.
- 229 R. yelled when saw another R. stealing, called an Att. over.
- 230 R. bought chololate syrup. An Att. asked R. to share it with everyone. At first R. got real mad and left. 5 min later, R. came back and shared it with everyone.
- 233 R. folded towels and put them away without being asked.
- 235 R. likes to take an Att. type role. Asked Att. if he could help and knew how to operate keys.
- 236 R. goes into toilet stall and doesn't come out. Atts. are short-staffed, so no one noticed when the R. was gone for more than one hour.
- 237 R. in wheelchair offered to carry party things down from kitchen.
- 238 An Att. had to get some tables and chairs from downstairs. The Att. told R. that they'd go down later. When Att. got there, R. was waiting with four chairs by the elevator.
- 239 Today R. snuck into laundry room when he was supposed to be outside, and pestered the workers.
- 240 R's family came to visit. R. was very short-tempered and rude, even though she had been awaiting the visit for days.
- 242 R. was mad because he couldn't go to school due to a cold. R. had a tantrum, kicking and screaming and ramming his wheelchair against furniture.
- 243 R. won't talk, even though she knows how. She wouldn't talk yesterday to a student volunteer, even though the volunteer tried to make her talk.



- 244 R. showers and dries off with towel and got dressed, then brushed her own hair. Brushing her hair surprised the Att. because usually she just wants to leave the bathroom.
- 246 On a field trip, a R. whom the Att. had never heard make a sound, made one, which was not really a word but an utterance.
- 247 A very handicapped R recognized a volunteer when he came in. The R. seldom recognizes anyone.
- 249 R. smiled to get her own way.
- 251 R. purposely dropped an apple that an LPN gave her.
- 257 An Att. threw a frisbee at a very well coordinated R. who is always quiet. After a few times R. threw it back and was good at it and they played for a long time.
- 258 Yesterday, outside, a usually withdrawn R. agreed to play a game.
- 259 R. 1 really likes one Att. who has never shown her special attention. When Att. showed attention to R. 2, just cutting R. 2's fingernails, R. 1 got all upset and started banging her head against the wall, biting herself, and being mean to other residents.
- 260 R. took keys and rifled Att's cars.
- 261 When Att. came in the room, R. swore and insulted Att.
- 263 R. is very stubborn when she gets awakened. She refused to get up and get dressed.
- 265 R. kicked Att. because she wanted affection.
- 266 R., who was reprimanded for inappropriate behavior, ran over screaming and broke a window.
- 267 R. started talking to herself, got all upset, ran into the building and started painting with her feces.
- 268 R. threw her pocketbook on the floor.
- 272 Something went wrong at the movies in the recreational building. Back at her home building, R. tipped beds over.
- 273 R. flipped herself over in wheelchair following a cataract operation a few days earlier.
- 275 In dining room, R. began throwing silverware around. It almost hit some other Rs.
- 276 R. doesn't like to stay in bed at night, likes to get up and walk around.

- 278 R. went up to Att. and said "I was a good girl" when Att. came back from two days off.
- 280 R., who used to swear and insult an Att. came up to her and said "I miss you and I want to come back" (had been moved to another building).
- 283 A normally cooperative R. today was very stubborn with Att. She refused to comb her hair or go outside.
- 285 R. supposed to go home Friday for weekend with family. Starting Weds., she was cooperative and well behaved. Thursday night she started to pack her own clothes.
- 287 R. made her bed upon request by Att.
- 288 R. threw shoelaces in toilet and flushed them.
- 290 Very strong R. was convinced there was a pin in her stomach which she swallowed. The Dr. said "no" but R. insists "yes" and wanted an operation by her personal Dr., who doesn't exist. She got really hyper banging doors, kicking walls, making as much noise as humanly possible. When reprimanded, she smashed her head into the wall and put a 4" hole in it.
- 291 R. broke eyeglasses of a female Att., no one knows why. The R. doesn't like women, perhaps because he is sexually frustrated.
- 292 R. scratched and bit an Att. when he was told he couldn't go into slab room.
- 293 R. spit, hit and kicked an Att. when she was asked to put her coat on.
- 298 Att. walked up to R. and said "good morning" - R. made noises, spinned and pushed the Att. away.
- 299 Att. got out of her car and walked to building. R., who sits in chair all day, yelled out window: "go home, she's no good," "go home you bitch."
- 301 R. hit himself, then hit an Att. when he didn't get what he wanted right away.
- 308 R. sat and rocked when asked to do something.
- 311 When told to get in line for dinner, R. got mad and knocked tray over, purposely got food on Att. and refused to clean it up.
- 312 R. has been unhappy since visit with her family. Today, she refused to get out of bed or eat.

- 314 R. came up to an Att. and tells her that she really likes to go to the dining hall.
- 315 R. 1 was very messy and R. 2 went around picking up after her. R. 1 threw her toys, clothes, food, etc. all around.
- 316 A nurse went in to give out pills. R often refuses them, but tonight took them without complaining.
- 320 R follows an Att. around, hugging and pulling at her all afternoon.
- 324 R. made all beds when asked.
- 325 R's family took her home for a visit. She came back with money, toys and gifts. Within a week she broke them all, even though Atts. kept telling her not to.
- 328 R. said "eat shit" to himself. After he said it, he told himself not to do it.
- 330 R. unsuccessfully tried to lose weight for a long time. Now she has lost over 50 lbs., and is more successful than normal people. R. is very proud.
- 339 R. swept up the leaves in the yard with another R until all the leaves were piled up.
- 340 R. picked up odds and ends off the ground and ate them.
- 341 R. shoved a pebble up his nose when sitting alone in yard.
- 344 R. threw his shoes over the fence.
- 353 R. poured milk for himself from a pitcher for the first time at supper.
- 357 R. made mush out of his food.
- 358 R. ate until full and then vomited.
- 360 R. cleared off the table and carried a tray of dirty dishes.
- 362 R. made his bed on his own.
- 364 R. tried to bite an Att. when not given his way at shower time.
- 366 R. dried his back, which is hard for him to do because he is uncoordinated.
- 367 R. helped carry towels at showertime without being asked.
- 369 A usually incontinent R. voided in toilet.

- 371 R. vomited deliberately and then ate the vomit.
- 373 R. banged his head when told he couldn't go for a walk.
- 374 R. hit attendant with his shoe when asked to get dressed.
- 376 R. put blocks together with other R.
- 380 R. dried his legs by himself after months of being made to do it.
- 383 R. refused to put his clothes on even though he is capable of doing so.
- 385 R. usually puts on own clothes. Today she wouldn't, and she made Att. dress her.
- 387 R. got her belongings taken away for misbehaving. She then refused to wear clothes, was screaming and swearing and threw chairs and hit other residents all morning.
- 390 Last week, Att. brought out a puzzle. R. kept trying to take the pieces away.
- 396 R. flushed clothes down toilet.
- 397 R. 1 was threatening and harrassing the RN. R. 2 protected the RN by getting in between the RN and R. 1.
- 398 R. jumped Att., yelling "I'm going to kill you."



