#### DOCUMENT RESUME

ED 294 408 EC 202 579

AUTHOR Haller, Otto; And Others

TITLE Restrictive Procedures Baselines.

INSTITUTION Vocational and Rehabilitation Research Inst., Calgary

(Alberta).

SPONS AGENCY Alberta Social Services and Community Health,

Edmonton.

PUB DATE Nov 87

NOTE 41p.; Funding was also provided by the Alberta

Priority Employment Position and Summer Temporary

Employment Program grants.

AVAILABLE FROM Vocational and Rehabilitation Research Institute

Resource Centre, 3304 33rd St., N.W., Calgary,

Alberta T2L 2A6, Canada (free).

PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Adults; Behavior Modification; Group Homes;

\*Interaction Process Analysis; \*Mental Retardation; Naturalistic Observation; \*Observation; Personal Autonomy; Rehabilitation; Sheltered Workshops

IDENTIFIERS \*Restrictive Procedures

#### **ABSTRACT**

Prior to the adoption of a Restrictive Procedures Guidelines Draft, baseline measures on the use of restrictive procedures were collected by observing selected retarded adult clients (N=13) in seven pre-selected settings (group homes or vocational shops) of the Vocational and Rehabilitation Research Institute (VRRI) in Calgary, Alberta. An observer recorded client/staff interactions thought to lead to the use of restrictive procedures. Observations were categorized by two independent researchers and reliability measures were obtained. Categorization reached acceptable consistency (p=.001). The results indicated that 71% of observed client/staff interactions consisted of other than restrictive procedures. Most of the restrictive procedures employed limited movement. The overall rate of the use of restrictive procedures was 1.54 per hour. Depending on the setting, the rate varied from 0.00 to 6.00 per hour. Suggestions were made for improving the methods of similar studies and for improving the behavior modification aspects of the programs. (Author/DB)



U.S. DEPARTMENT OF EDUCATION
Office of Educations! Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced au received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in thir document do not necessarily represent official OERI position or pulicy

Restrictive Procedures 1

Restrictive Procedures Baselines

Otto Haller, Research Associate Sharon Bumstead, Research Assistant Susie Bolton, Research Assistant Department of Research

November, 1987

The Vocational and Rehabilitation Research Institute
Department of Research
3304 - 33rd Street N.W
Calgary, Alberta
T2L 2A6

Running Head: RESTRICTIVE PROCEDURES

Key Words: Behavior Modification
Observational Study

Restrictive Procedures

...

l This study was made possible through funding from Alberta Social Services and Alberta Priority Employment Position and Summer Temporary Employment Program grants to the VRRI

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Jawan'

TO THE EDUCATIONAL REGOURCES INFORMATION CENTER (ERIC)."

2

ERIC

## Restrictive Procedures 2

# TABLE OF CONTENTS

bstract	3
ntroduction	4
ethod	4
esults	6
iscussionl	C
eferences 1	ľ
ibliography l	_
ppendix A 1	٤
ppendix B 2	(
ppendix C 2	.6



#### Abstract

Prior to the adoption of a Restrictive Procedures Guidelines Draft, baseline measures on the use of restrictive procedures were collected by observing selected clients in seven pre-selected settings within the VRRI - a research and domonstration facility for adults with mental handicaps. An observer recorded client/staff interactions thought to lead to the use of restrictive procedures. Observations were categorized by two independent researchers and reliability measures were obtained. Categorization reached acceptable consistency (p = .001). The results indicate that 71% of observed client/staff interactions consisted of other than restrictive procedures. Most of the restrictive procedures employed limited movement. The overall rate of the use of restrictive procedures was 1.54. Depending on the setting, the rate varied from 0.00 to 6.00 per hour. Suggestions were made for improving the methods of similar studies and for improving the behavior modification aspects of the programs.



### Introduction

The Vocational and Rehabilitation Research Institute (VRRI), a University of Calgary affiliated and community operated research facility established a committee to draft guidelines for the use and monitoring of restrictive procedures within the Institute. In anticipation of the implementation of these guidelines, baseline measures were taken on the use of restrictive procedures in selected program environments. Follow-up investigations would determine changes in the frequency and patterns of the use of restrictive procedures as a function of the implementation of the guidelines.

The proper use and ethical implementations of aversive behavior modification programs and other control measures has been a concern to investigators and practitioners (Bandura, 1969; Egelston & Shuyter, 1974). Recently governments and private agencies have made efforts to set up restrictive procedures guidelines. For example, the government of Alberta (1982a, 1982b, 1984) made guidelines available which outlined client rights, and a community organization, Community Horizons '84 (1985), drafted a restrictive procedure guidelines package for rehabilitation agencies. It is from these that the VRRI Restrictive Procedures Guidelines Committee drafted guidelines for in-house use (1986). At the time of writing this report, the committees' guidelines had not yet been approved for implementation by the VRRI.

#### Method

### Setting

The VRRI offers day training programs to 205 mentally handicapped adults and residential programs to 177 adults. These services are provided in 36 physically distinct settings (group homes, vocational shops, etc). Of these,



seven were selected for study. First a list of clients with the most frequent behavioral reports (based on documented reports on behavioral difficulties) was prepared. The program settings of these clients were identified and the most frequently identified settings were selected for study. The settings consisted of one activity centre for low functioning clients, three vocational training shops, and three group homes.

### Clients

Fourteen clients were targeted for observation in the eight settings. Their ages ranged from 19.42 (x = 26.8), 6 were women; 8 were men. I.Q. scores obtained by means of the Ravens Colored Progressive Matrices Test (Raven, 1956) were estimated for the clients. The scores ranged from 0 to 80 (x = 65.9); all but one client had secondary disabilities (eg. mental illness, physical disorders, perceptial disorders). As each of the clients had a guardian, informed consent was sought from them. All but one guardian gave consent.

#### Procedure

The selected settings were randomly associated with observation time to eliminate possible bias. Staff of these settings were informed about the investigation by memoranda. In particular, the study was briefly described and staff members were assured confidentiality. At the time of the observation, the observer introduced herself to staff members of a setting. The observer then positioned herself in a manner which allowed the best possible view of the setting to record observations. One hour observations were targeted to a specific client in a setting. Each client was observed for three one-hour sessions When clients moved to a new setting (different from the setting anticipated) the observer moved with the client.



Each staff/client interaction that appeared to lead to the use of a restrictive precedure was recorded. Observations consisted of noting the antecedent event, the nature of the intervention, and the staff or client response to the intervention. Restrictive Procedures were defined according to the proposed guidelines as follows:

"Any procedure which is used to modify behavior that presents a serious threat to the safety of the client, other persons or property, and which restrains or restricts the person's freedom of movement or behavior; that involves the presentation of any substance that is unpleasant to any of the senses; or that limits the client's access to events, privileges, reinforcers or objects that would normally be available to the client is restrictive" (Vocational and Rehabilitation Research Institute, 1986).

Each obtained record was categorized into 17 categories by two independent researchers. The categories and their definitions are presented in Appendix A. The reliability of categorization was determined. Nine of the seventeen categories were employed by the two raters. Of 188 records agreement was reached in 151 cases. A randomization test (Edgington, 1980) was developed to calculate a probability value for the observed consistency. The program listing and users' guide are presented in Appendix B. The program is based on the test statistic kappa (k) for nominal data (Cohen, 1960). Test results indicated adequate consistency (p = .001).

#### Results

Each observation was coded. The coded observations are presented in Appendix C. The categorized observations are presented in Table 1.

Seventy-one percent of all observations were classified as non restrictive. Of the restrictive procedures, most consisted of physical contact or procedures which limited clients' movement (e.g. physical prompts or body



Table 1
Categorized Observations

Procedures	Frequency	%
Non Restrictive	132	71
Physical Prompts	24	12
Body Boundary	9	5
Social Disapproval	9	5
Physical Escort	8	4
Seclusion	2	1
Physical Hold	2	1
Contingent Exercise	1	•5
Restitution	1	.5
Total	188	100



boundaries). Social disapproval accounted for the majority of the remaining observed procedures.

Table 2 presents observations as a function of settings. In 36 hours of observation 56 restrictive procedures were observed. The overall hourly rate is 1.54. When considering settings, Table 2 clearly shows that the use of restrictive procedures was most frequent in shops 1 and 2 and least frequent in the other shops. The rate of use of restrictive procedures (RP/hr) is most informative in this respect. In shop I six restrictive procedures were used per hour. In group homes the rate ranged from 1 to 4 per hour, and in other shops the rate ranged from no restrictive procedures observed to less than three per hour.

The total number of observations may be viewed as an estimate of the amount of staff/client contact. Table 2 shows that nearly all observations in shop l were restrictive procedures whereas in group homes and in other shops there were many interactions which were not restrictive. The results also show that shops have low rates of observed client/staff interactions.

Clients were not always stationary. Those in shop 1 at times were in shop 2. Table 2 entries within broken lines indicate shops occupied by the same clients. Viewing data from this perspective suggests that the type of activity (or setting) affects the frequency of the use of restrictive procedures. Thus, the hourly rate changed from 6.0 in shop 1 to 2.8 in shop 2. Similarly, ratios associated with different shops but with the same clients varied from 0.00 to 0.68.





Table 2

Restrictive Procedures as a Function of Settings

Settings		Number of Observations	Restrictive Procedures	Observation Time (hrs)	RP/hr
Shops	1	26	26	4.33	6.00
	2	19	14	5.00	2.80
	3	0	0	0.92	
	4	16	0	4.42	-
	5	13	2	3.00	0.68
	6	1	0	3.92	
	7	40	4	10.8	0.38
Residential Training	1	16	1	1.00	1.00
	2	24	4	1.00	4.00
	3	33	5	2.00	2.50
Total		188	56	36.26	1.54

#### Discussion

A study was conducted to obtain baseline measures on the use of restrictive procedures. Data presented described the use of restrictive procedures over 36 hours of observation time in seven settings. The study suggested a pattern of the use of restrictive procedures. Physical control over clients' movement was the most prevalent form of control. This pattern was most marked in shop 1. Next, the rate of the use of restrictive procedures varied according to settings. Shop 1 had the highest rate followed by residential settings; other shop settings had the lowest rate. Considering restrictive procedures as a part of all observation, in shop 1 each staff/client interaction observed was classified as a restrictive procedure. Non restrictive interactions were highest in residential settings (about 16 per hour), low in shops 3 to 7 (about 3 per hour), and lowest in shops 1 and 2 (.5 per hour).

In one half of all cases more than one restrictive procedure was used. This was mainly the case for shop 1. An examination of these cases (see Appendix C) showed that multiple procedures were used to pair verbal with physical interventions, and to sequence procedures from mild to more intense.

Although not reflected in the data presented, a consideration of the content of the procedures (see Appendix A) shows a tendency towards aversive or physical control procedures designed to effect immediate change in a situation. The alternative is the rewarding of appropriate behavior. Also, clients were notably passive -- most interactions were initiated by staff members.



Data of these observations may be artifacts of the observational procedure employed. The focus of the study was to baseline restrictive procedures not staff/client interactions. However, aversive procedures and passivity of clients are of sufficient importance to warrant examinations at any time. We therefore suggest that rehabilitation procedures be examined to determine whether in fact the most effective behavior modification procedures are employed.

Most client/staff interactions observed within the settings of the VRRI were not restrictive procedures. Corrective verbal prompts, instructions or commands were used most frequently in client/staff interactions. This finding implies that 'verbal prompts' (requests and commands) were employed prior to any physical restraints. Some verbal commands consisted of reminders to clients about appropriate behavior, others consisted of clients asking for advice.

The use of restrictive procedures varied as a function of settings and activities in these settings. Shop I runs a program for mentally handicapped adults who are not able to profit from a regular day program. The program consists of intense individualized instructions. Thus, the very nature of this setting implies close client supervision and a relatively high probability of the use of restrictive procedures. In the other shops on the other hand, clients often perform well-learned tasks such as folding envelopes, sanding wood, watering plants, stacking bottles, etc., which require little instruction or intervention. The staff/client ratio in these shops is 1/15 or less. Thus, both low levels of interactions and low levels of interventions with restrictive procedures are expected.



Group homes offer domestic settings that are home-like and in which conversations and instructions in domestic chores predominate. Group homes house six clients who are supervised by two or more staff members. The nature of the setting is again reflected in the data — interactions are highest in group homes. The group homes also provided service to clients with behavioral difficulties. In fact some clients of the activity program were in these residences. Thus, it is not surprising that restrictive procedures in these group homes were more frequent than in shops and that group home rates approached rates of the activity centre and the coupon sorting shop.

### <u>Conclusion</u>

The Restrictive Procedures Draft Guidelines (VRRI, 1986) recommends the formation of a monitoring committee and systematic education of staff members regarding the use of restrictive procedures, alternatives to restrictive procedures, and the process of designing and implementing programs with restrictive procedure components. When implemented, these procedures would be expected to change both the frequency and the pattern of the use of restrictive procedures. Baseline data have been presented so that the effect of the suggested changes can be measured at a future date. Aside from providing baseline data, suggestions for examining rehabilitation procedures were given.

For comparison purposes with baseline data, future studies should closely follow the procedures of this study. However, improvements with regard to inter-rater reliability should be made. Data for inter-rater reliability of observations were not available for this study. Also, classification of observations should occur during the observation to ensure consistency of the



# Restrictive Procedures 13

overall relativity index. Video taping at least some observations would further enhance the data collection procedure and may provide important material for later discussions and training purposes.

#### References

- Alberta Government, Department of Social Services and Community Health (March, 1982a). Guidelines for Implementation of Specific Restrictive Procedures.
- Alberta Government, Department of Social Services and Community Health(March, 1982b). Policy and Guidelines Ethical Issues and Restrictive Procedures.
- Alberts Government, Department of Social Services and Community Health (September, 1984). Guidelines for the Development of a Restrictive Procedures Manual Draft.
- Bandura, A. (1969). <u>Principles of Behavior Modification</u>. New York: Holt, Rinehart and Winston, Inc.
- Cohen, J. (1960). A coefficient for agreement for nominal scales. <u>Education</u> & Psychological Measurements, 20, 37-46.
- Community Horizons '84 (May, 1985). Guidelines for Standards and Ethical Use of Restrictive Procedures for the Calgary Region.
- Edgington, E. S., (1980). Randomization Tests, N.Y.: Marcel Dekker
- Egelston, J.D. & Shuyter, G.V. (1984). Trends in the Use of Restrictive and Aversive Procedures in a Facility for Developmentally Disabled Persons. Education and Training of the Mentally Retarded, 19(4), 306-311.
- Raven, J. C. (1956). <u>Guide to Progressive Matrices</u>. N.Y.: Psychological Corporation
- Vocational and Rehabilitation Research Institute (1986). Restrictive Procedures Guidelines Draft.



### **Bibliography**

- Allchin, W. H. (1964). Cited in Bandura, A. (1969). Behavior Therapy. British Journal of Psychiatry, 110, 108.
- Barlow, D. H. (Ed). (1981). Behavioral assessment of adult disorders. New York: Guilford Press.
- Blatt, B. (1981). In and Out of Mental Retardation. Baltimore: University Park Press.
- Boer, D. M., Wolf, M. M., & Risley, T. R. (1903). Some current dimensions of applied behavior analysis. Journal of Applied Behavior Analysis, 1, 91-97.
- Campbell, D., Sanderson, R.E. & Laverty, S.G. (1964). Cited in Bandura, A. (1969). Characteristics of a conditional response in human subjects during extinction trials following a single traumatic conditioning trial. Journal of Abnormal and Social Psychology, 68, 627-639.
- Carr, E. G., Newsome, D. D. & Binkoff, J. A. (1976). Cited in Egelston, J. D. & Shuyter, G. V. (1984). Stimulus control of self-destructive behavior in a psychotic child. Journal of Abnormal Psychology, 14, 139-143.
- Ciminero, A. R., Calhoun, K. S., & Adams, H. E. (Eds.), Handbook of behavioral assessmenc. New York: John Wiley & Sons.
- Clancy, J., Vanderhoof, E. & Campbell, P. (1967). Cited in Bandura, A. (1969). Evaluation of an aversive technique as a treatment of alcoholism. Quarterly Journal of Studies on Alcohol, 28, 476-485.
- Cone, J. D. (1979). Confounded comparisons in triple response mode assessment research. Behavioral Assessment, 1, 85-95.
- Coons, W. H., Haley, G. A., & Maharaj, H. R. (1984). Behavioral assessment of disturbed, institutionalized retardates. Canadian Journal of Psychiatry, <u>29</u>(3), 263-268.
- Eyman, R. K., Borthwick, S. A. & Miller, C. (1981). Cited in Egelston, J. & Shuyter, G. (1984). Trends in maladaptive behavior of mentally retarded persons placed in community and institutional settings. American Journal of Mental Deficiency, 85, 473-477.
- Gordon, A. (1983). Baker Center Guidelines.
- Hawkins, R. P., Fremone, W. J., & Reitz, A. L. A model for use in designing or describing evaluations of mental health or educational intervention programs. Behavioral Assessment. In press.
- Haynes, S. N. (1978). Principles of behavioral assessment. New York: Gardner Press.



- Haynes, S. N., & Wilson, C. C. (1979). Recent advances in behavioral assessment. San Francisco: Jersey-Boss.
- Hsu, J. J. (1965). Cited in Bandura, A. (1969). Electroconditioning therapy of alcoholics. A preliminary report. Quarterly Journal of Studies on Alcohol, 26, 449-459.
- James, T. N. (1984). Standards for Client Abuse and the Use of Restrictive Procedures in Treatment or in Care. (Checklist Format).
- Kazchin, A. E., & Straw, M. K. (1976). Assessment of behavior of the mentally retarded. In M. Hersen & A. S. Bellak (Eds.), <u>Behavioral Assessment</u>. Oxford: Perganon Press.
- Keefe, F. J., Lopel, S. A., & Gordon, S. B. (1978). A practical guide to behavioral assessment. New York: Springer.
- kent, R. N., \* Foster, S. L. (1977). Direct observational procedures: Methodological issues in naturalistic sessions. In A. R. Ciminero, K. S. Calhoun, & M. E. Adams (Eds.), <u>Handbook of behavioral assessment</u>. New York: John Wiley & Sons.
- Kent, R. N., Kantowitz, J., O'Leary, K. D., & Cheiken, K. (1977). Observer Reliability as a Function of Circumstances of Assessment. <u>Journal of Applied Behavior Analysis</u>, <u>10</u>, 317-324.
- Lovaas, O. I. & Simmons, J. Q. (1969). Cited in Egelston, J. & Shuyter, G. (1984). Manipulation of self-destruction in three retarded children. <u>Journal of Applied Behavior Analysis</u>, 2, 143-157.
- Martin, R. (1975). Cited in Egelston, J. & Shuyter, G. (1984). <u>Legal</u>
  <u>Challenges to Behavior Modification</u>. Champaign, Ill: Research Press.
- Mash, E. J., & Lendal, J., G. (Eds.). (1981). <u>Behavioral assessment of adulthood disorders</u>. New York: Guilford Press.
- Matthews, P.C. (1964). Cited in Bandura, A. (1969). Behavior Therapy. British Journal of Psychiatry, 110, 108.
- Mitchell, S. R. (1979). Interobserver agreement, reliability, and generalizability of data collected in observational studies. Psychological Bulletin, 86, 376-390.
- Paul, G. L. (1969). Behavior modification research: Design and Tactics. In C. M. Franks (Eds.), <u>Behavior Therapy-Appraisal and Status</u>. New York: McGraw-Hill.



- Sackett, G. P. (Ed.). (1978). Observing Behavior, Baltimore: University Park Press.
- Thomas, D. R., Murphy, R. J. (1981). Practitioner competencies needed for implementing behavior management guidelines. Behavior Therapist, 7: 7-10.
- Walls, R. T., & Werner, T. J. (1977). Vocational behavior checklists. Mental Retardation, 15(4), 30-35.
- Webb, E. J., Campbell, D. T., Schwartz, R. D., & Lechrestiv (1966).

  <u>Unobstrusive measures: Non-reactive research in the social sciences</u>.

  <u>Chicago: Rand McNally.</u>
- Weick, K. E. (1968). Systematic observational mehtods. In G. Lindzey and E. Aronson (Eds), The handbook of social psychology: Vol. 2. Reading Mass.: Addison-Wesley.



### APPENDIX A

Restrictive Procedures Definitions (as adapted and modified from the

- V.R.R.I. Restrictive Procedures Guidelines Draft 1986). \* Restrictive Procedures actually employed during observations.
- \*1 Body Boundary (BB) Moving or directing a client with your body without touching the client, or blocking a client from moving to a particular area without contact. Body Boundary must not involve physical contact. May include staff making a bodily movement towards the client in hopes of instigating a movement from the client.
- \*2 Contingent Exercise (CE) Requiring a client to perform an exercise program as an immediate consequence of an inappropriate behavior. Contingent Exercise usually consists of body movement.
- 3 Contingent Observation (CO) Directing a client to remove herself from an activity and to observe appropriate behavior.
- 4 Exclusion (EC) As a result of inappropriate behavior, directing a client to remove himself from the present activity. The client is instructed to discontinue the activity but remain in the immediate area (in view) and to go to a specified location. Exclusion does not 'seclude' a client.
- 5 Extinction (ET) Witholding or withdrawing all reinforcement for an established, inappropriate behavior, which results in a decrease in the frequency, or elimination, of that behavior.
- 6 Overcorrection (0) Verbally directing or physically prompting a client to engage in actions which correct the results of the clients' inappropriate behavior, plus restoring the environment to better than original condition. In most circumstances, only one staff member provides prompts.
- \*7 Physical Escort (PE) Physically leading or escorting a resistant client to or from a specified area. Physical escorts usually involve two staff members but may include escort by one or more staff members. May also include physical escort by hand-holding.
- \*8 Physical Holds (PH) Physical restraint of a client by another person to prevent the client from moving her limbs and/or body.
- \*9 Physical Prompts (PP) Physically moving a clients' limbs to perform a task which the client is refusing to perform. May include extending hand to client prior to physical escort (physical escort by hand-holding ); May also include gestural commands. Physical prompts are illicited by one staff member only.



- 10 Positive Practice (PPR) As a consequence for inappropriate behavior, requiring the client to practice correct behavior repeatedly. This procedure must be used immediately after the inappropriate behavior is noted and the client must be directed by only one staff member.
- 11 Required Relaxation (RR) Mandatory, supervised "relaxation" of a client immediately following an inappropriate behavior. A client is not restrained (physically held) during this procedure,
- 12 <u>Response Cost/Educational Fines (RC)</u> removal of a positive reinforcer (object, activity or privelege) or provision of a penalty contingent on pre-determined inappropriate behavior. A client must be aware of the consequences of his/her behavior prior to the i plementation of this procedure.
- \*13 <u>Restitution (R)</u> A behavioral procedure which requires the client to restore the environment or situation to its original condition. It requires that the client pay back or make up for his behavior. Repetition or overdoing the activity or behavior results in positive practice or overcorrection.
- \*14 <u>Seclusion (S)</u> Directing/detaining a client to a specific location to minimize danger to himself, others or property. The seclusion environment is not locked.
- 15 <u>Self-Punishment (SP)</u> Teaching a client to provide herself with punishing consequences contingent upon a target behavior.
- \*16 <u>Social Disapproval (SD)</u> Witholding or withdrawing all reinforcement for an established inappropriate behavior, which results in a decrease in the frequency, or elimination, of that behavior.
- \*17 No Restrictive Procedures (N) Any client/staff interaction which is intended to benefit the vocational program without becoming a restrictive procedure; All other verbal/gestural prompts or corrective procedures that occur in normal vocational situations intended to benefit the vocational program. These may include simple requests or commands and staff



#### APPENDIX B

Program Listing and Users' Guide

FORTRAN STATISTICAL PROGRAMS:

NAME

FUNCTION

MATCH.FORTRAN

The function of this program is to calculate probability values for correlations of nominal data by randomization procedures. Limitations: 200 paired data points, 2 variables Input: From file only

MATCH\_I.FORTRAN

This program has the same function and limitations as MATCH, with the only difference being that the input is accepted from the terminal keyboard

MATCH.FORTRAN: Detailed description with example

Program Match (1987)

This program was written by Otto Haller, Research Associate, Department of Research, The Vocational and Research Rehabillitation Institute in Calgary, according to the specifications of Eugene S. Edgington, Professor, Department of Psychology, University of Calgary.

MATCH calculates probability values for correlations of nominal data by employing randomization procedures (Edgington, 1980).

The program uses the number of agreements between observers as a test statistic and is equivalent to kappa (k) (Cohen, 1960). It determines how often the observed consistency would be obtained by chance and prints out the number of observed agreements and the probability value.

MATCH requires the input data to be in the following form:

n pair, n perm, n sub, n opt
frmtl (optional)
data (observer 1)
data (observer 2)



#### where:

```
nperm = number of data points of any one observer
nperm = number of required permutations (usually 1000)
nsub = number of sets of data to be done
nopt = whether or not data is to be printed out ("y" or "n")
frmtl = the output format (to be used only if results are to be printed)
```

Data points are to be entered for each observer by separating them with a  $\operatorname{\mathsf{comma}}$ .

### EXAMPLE:

Two observers independently categorized behavior according to five categories. Each observer made ten observations.

### Input:

```
10,1000,1,1
(5x,10f3.0)
1,1,2,5,4,3,3,3,1,5
1,2,1,4,5,1,3,3,2,5
```

### Output:

```
1. 1. 2. 5. 4. 3. 3. 3. 1. 5. 1. 2. 1. 4. 5. 1. 3. 3. 2. 5.
```

number of matches = 4 probability = 0.159000

To run the program, it must first be compiled if this has not already been done. Then, simply type "match" at command level.

### PROGRAM LISTINGS

### match.fortran

- c Program MATCH
- c MATCH calculates probability values for correlations of nominal data by randomization test procedures.

common/a/ d(200,2) character\*50 frmtl character \* 1 nopt character \* 50 filenm character \* 1 contin write(6,25) write(6,26)



```
read(5,27) contin
     if(contin.eq."n".or.contin.eq."N") go to 99
     write(6,28)
28
     format(/5x,"Please enter input file name")
     read(5,29) filenm
29
     format(a50)
     open(8,file=filenm,form='formatted')
25
     format(30x,"MATCH"/30x,"*****")
26
     format(//5x,"MATCH calculates probability values for nominal"/
            5x,"data on inter-observer agreement."/
            /5x,"The input is recieved from an external data file"/
            /5x,"For more information, exit the program and"/
             5x,"type print match.info"
   +
            /5x,"Do you wish to continue? (y or n)")
27
     format(al)
     read(8,) npair, nperm, nsub, nopt
     if (nopt.eq."N".or.nopt.eq."n") then
        go to 5
     endif
     read(8,35) frmtl
     format(a50)
5
     do 9 ii=1.nsub
     prob=0.
     read(8,)(d(i,l),i=l,npair)
     read(8,)(d(i,2),i=1,npair)
     if (nopt.eq."y".or.nopt.eq."Y") then
       write(6,31)
31
     format(///5x,"Listing of Input Data"//)
       write(6,frmtl) ((d(i,j),i=1,npair),j=1,2)
     endif
     ntry ~J
     call stats (prob, npair, ntry)
     call prmt (prob,npair,nperm,ntry)
     prob=prob/nperm
9
     write(6,20)prob
10
     format(a80)
     format(///10x,"prob. value is ",f10.6)
20
     close (8)
70
     format(/10x,"Enter data for variable 1, separated by commas")
80
     format(/10x,"Enter data for variable 2, separated by commas")
99
     stop
     end
     subroutine stats (prob,npair,ntry)
    common/a/d(200,2)
    test=0.
    do l i=l,npair
    chk=abs(d(i,1)-d(i,2))
    if(chk.lt..0000001)d(i,1)=d(i,2)
    if(d(i,1),eq.d(i,2))test=test+1.
    if(ntry.eq.0)obtain=test
    if(test.ge.obtain)prob=prob+1.
     if(ntry.eq.0)write(6.25)test
    ntry=1
```



```
format (//10x,"There are ",f5.0, " matches")
return
end
subroutine prmt (prob,npair,nperm,ntry)
common/a/ d(200,2)
do 1 i=2,nperm
do 2 j=1,npair
call random_$uniform (r)
id=j+int(r*(npair-j+1))
z=d(j,2)
d(j,2)=d(id,2)
d(id,2)=z
call stats (prob,npair,ntry)
continue
return
end
```



# match\_i.fo ran: Short Description

This program is an interactive version of program match and performs the same functions as match. To run the programs, type "match\_i" and respond to prompts. Terms and parameters are explained in the description of the match program. Match\_i is most useful when a small data set is used that can be directly centered in the terminal.

```
С
       Program MATCH
      MATCH calculates probability values for correlations of nominal data by
С
      randomization test procedures.
      common/a/d(200,2)
      character*50 frmtl
      character * 1 nopt
      character * 1 contin
      write(6,25)
      write(6,26)
      read(5,27) contin
      if(contin.eq."n".or.contin.eq."N") go to 99
 25
      format(30x,"MATCH I"/30x,"*******")
      format(//5x,"MATC\overline{H}\_I calculates probability values for nominal"/
 26
             5x,"data on inter-observer agreement."/
             /5x,"The inp it is recieved from the terminal in free"/
    +
    +
              5x,"field format."/
             /5x,"Do you wish to continue? (y or n)")
 27
      format(al)
      write(6,30)
      read(5,) npair
      write(6,31)
      read(5,) nperm
      write(6,32)
      read(5,) nsub
      write(6,33)
      read(5,) nopt
      if (nopt.eq."N".or.nopt.eq."n") then
        go to 5
     endif
     write(6,34)
     read(5,35) frmt1
 35
      format(a50)
     do 9 ii=1,nsub
     write(6,70)
     prob=0.
     read(5,)(d(i,1),i=1,npair)
     write(6,80)
     read(5,)(d(i,2),i=1,npair)
     if (nopt.eq."y".or.nopt.eq."Y") then
       write(6,36)
36
       format(////////10x,"Listing of input data"/
       write(6,frmtl) ((d(i,j),i=1,npair),j=1,2)
```



```
endif
      ntry=0
      call stats (prob, npair, ntry)
      call prmt (prob,npair,nperm,ntry)
      prob=prob/nperm
 9
      write(6,20)prob
10
      format(a80)
20
      format(//10x,"prob. value is ",f10.6)
30
      format(/10x,"INPUT:"//10x,"no of data points for each group?")
     format(10x,"number of random permutations?")
format(10x,"number of data sets?")
format(10x,"do you wish to print input data? (y or n)")
format(10x,"enter format for output data")
31
32
33
34
      format(/10x,"Enter data for observer 1, separated by commas")
70
80
      format(/10x,"Enter data for observer 2, separated by commas")
99
      stop
     subroutine stats (prob, npair, ntry)
     common/a/d(200,2)
     test=0.
     do l i=l,npair
     chk=abs(d(i,1)-d(i,2))
     if(chk.lt..0000001)d(i,1)=d(i,2)
 1
     if(d(i,1).eq.d(i,2))test=test+1.
     if(ntry.eq.0)obtain=test
     if(test.ge.obtain)prob=prob+1.
     if(ntry.eq.0)write(6,25)test
     ntr = 1
     format (//10x,"There are ",f5.0, " matches")
25
     return
     end
     subroutine prmt (prob,npair,nperm,ntry)
     common/a/d(200,2)
     do l i=2,nperm
     do 2 j=1,npair
     call random_$uniform (r)
     id = j + int(r * (npair - j + 1))
     z=d(j,2)
     d(j,2)=d(id,2)
2
     d(id,2)=z
     call stats (prob, npair, ntry)
     continue
     return
     end
```



#### APPENDIX C

### **OBSERVATIONS**

1-1/31.7/1.30-3.00/V5/N Client proceeded to pick up boxes. Staff indicated, verbally, that they were the wrong boxes and then stated "-----, not those (and pointed), those over there." Where upon the client proceeded to the other boxes and picked those up. Staff walked away. Client went on their break.

2-2/31.7/V5/N Client had the wrong box for sorting amongst her other counting boxes (program boxes; boxes contained space for only 12 cans — used for counting. Staff, "why do you have this box here?" Client responds "I don't know." Staff: "Well, get rid of it." Client then roceeded to pick up the box and placed it elsewhere. The client then retur. I and continued working. Staff walked away.

3-3/31.7/V5/N Client sorting cans. Some types belong elsewhere. Staff, "show me where those go." Client points in correct direction and staff praises client whereupon client takes said cans over to appropriate place.

4-4/31.7/V5/N Client stacking boxes of cans. Staff comes over and proceeds to straighten stack. Client/staff verbal interactions.

5-5/31.7/V5/N Staff checking boxes of cans that are suppossed to contain 72 and discovers boxes that are not full. Staff brings said boxes to client and exclaims "I know there are not 72 cans in this." Staff begins to count through a number of boxes whereupon he finds that they are short. Client responds by looking at staff person and then continues at former task. Staff tells client to start doing work properly. Staff, "I don't have time to do this." The two clients working on this task agree to watch what they are doing more carefully. Staff continues to sort through boxes to figure out how properly. Both clients respond that they will work harder at it.

6-1/31.7/?/A/PP Staff put forth her hand to client's hand.
6-la/PP Once client grasped on Staff indicated by pulling gently on the client's hand that they were to leave.
6-ib/PP Took two prompts with a 3 second gap between each before the desired response was obtained. Client ignored first prompt but the second prompt (carried out in the above fashion) worked and the client stood up from her chair and left the room with the staff still holding the client's hand.

<sup>\*</sup> Code: # - Series / date / time / shop code / category.



27

7-2/31.7/A/S Client appears to be in some sort of isolation room however the door is open and three staff are outside of it ten feet away. 7-2a/PE Client was seated in this room but then tried to leave room wherupon a staff person physically took hold of his arms with her hands and led him back to his chair

7-2b/SD after which she verbally scolded him and told him to stay. The staff are still present just outside the room talking amongst each other. Client is visible inside the room and is seated, rocking in his chair. After 10 min. of seclusion (that I know of) staff went into the room and asked the client to get up and leave with them. Client willingly got up and followed the staff out of the room.

8-1/5.8/12.51-?/A/BB Client was seated at a table flipping through a magazine. He suddenly got up and proceeded to leave. Staff then chased after the client just after he got out of the door.

8-la/PE He was then led back into the room by a staff member.

8-lb/PE The staff then grabbed the client by the back of the shirt and led the client back to his chair in the above manner. The client stood at the table with the chair behind his knees.

8-lc/PP After the client was asked to sit twice and did not respond the client was then physically forced to sit in his chair by the staff who pushed down upon the client until he sat (the entire procedure seemed to me to be carried cut more roughly than seemed necessary). Took approximately 10 seconds.

9-2/5.8/A/PP Staff enters the room and goes over to a client and puts her hand out for the client to grasp on and stand up out of chair. Clien: avoids outstretched hand by continually moving her hand out of the reach of the staff's hand.

9-2a/PE Finally, the staff person grasps onto the client's hand and pulls gently a couple of times until the client stood up and left with the staff who was still holding unto the client's hand as they left the room.

10-3/5.8/A/PP The group of clients and staff began to leave the room. One client remained seated. Staff went over to the seated client and put forth her hand while also giving a verbal command. The first outstretched hand prompt did not work. The client simply did not respond to this. 10-3a/PP The second prompt involved physical contact between client and staff whereupon the staff grasped the client's hand with her hand and then the client proceeded to stand up from the chair and followed the group out of the room with the staff still holding the client's hand.



11-1/12.8/10.45-11.45/A/BB There were two staff working with one client (nuts and bolts). Both the staff were simultaneously, and alternately, very quickly telling and showing the client what to do. Apparently the client was not doing the task properly so both of the staff were trying to instruct the client. Suddenly the client got up and started for the door, whereupon both of the staff darted for the door to block the client's exit (Body Boundary). The client promptly sat down on the floor a few feet away from the door.

11-la/PE The staff then walked over to the client and grabBIng each elbow lifted the client and attempted to put her back to her spot at the work table. She refused and got up and wandered around acouple of times while staff kept a watch over her.

11-1b/BB When she tried to exit the room both staff over to her and surrounded her.

11-lc/PP One staff person tried to grab her arm whereupon the client started to struggle and yell.

11-1d/S Staff ceased actions and pointed to the time-out room where the client walked to without resistance. The client was in seclusion for about 5 min. Staff stood by the door while the client was inside. The door of the room was open.

12-1/12.8/1.50-2.15/V4/N Staff requested client to go to the other table to perform a different task. Client got up promptly and moved to the other table. Staff asked client how she was doing at the "new" task. Client indicated she wanted a tool to better perform her task. Staff said come with me and we will see if we can find something. Both then proceeded into the tool room. Found what they wnted in a couple of minutes and both reappeared with the client going back to the task using the tool.

13-1/12.8/12.30-1.45/V5/N Staff notices a number of boxes in and around pathway. Tells client "to keep pathway clear." Client begins to clear area. Staff leaves.

14-2/12.8/V5/N Staff showing a client how to do a particular task. Does the task in the manner desired while explaining how to do it to the client. Client listens attentively while staff explains. Client then begins to perform the task while the staff watches and after a few seconds the scaff person leaves.

15-3/12.8/V5/SD Staff states to client after another supervising client explains performance about the client that "-----, is your boss right now. You've got to listen to her. It's not good to not listen." The client then responds positively to this statement and starts back to work.

16-4/12.8/V5/N Staff approaches client to check work. Makes a couple of comments and moves on.



17-5/12.8/V5/N Staff asks client "when you leave for your break where are going to put those?"(boxes) Client points to spot. Staff responds "yes thats right. I made a spot for those on top of the lockers. OK? (Client does'nt respond.) OK -----?" Client then responds "yes, OK." Staff then left.

18-6/12.8/V5/N Staff: "Why did you put these bottles in here?" Staff then proceeds to take the bottles out and put them where they belonged. Staff then leaves.

19-7/12.8/V5/SD Client complained about being hit on the head with pop cans - accident by another client. Staff then asked to see the client who was careless in depositing cans. Client came over promptly. Staff requested client to "please be more carefull when depositing the cans in the cage and their job."

20-8/12.8/V5/N Client requested assistance from staff in adding bottles. Staff pointed at paper. Staff then walked over to the client to assist him further with adding on sheet.

21-9/12.8/V5/N Staff: "Fill these OK ----?" Whereupon some boxes were handed to the client. Client took the boxes and promptly completed task.

22-10/12.8/V5/N Staff: "Put the beer cans in here OK?" Client responds "OK" and takes the boxes given. Staff - "keep this area cleared away."

23-1/13.8/10.00-11.00/V5/N Client asked a question and staff assisted by explaining.

24-2/13.8/V5/N Client asked a question and staff assisted by explaining.

25-3/13.8/V5/N Client placed something in an inappropriate place. Staff then requested the client "to take it out and explained that that was what they had been talking about previously and to be more careful."

26-4/13.8/V5/N Client throwing the wrong bottles out. Staff noted this and asked her why was she throwing those out. Staff then picked the bottles out of the BIn and replaced them in boxes. Staff states "watch what you are doing -----, wake up and smell the coffee."

27-1/13.8/1.30-2.30/V2/N Observed client was not really doing his work. Staff noticed this and told client to "get busy, right now." Client promptly started to work.

28-1/13.8/5.40-6.40/GH2/PP Staff: "why don't you sit down?" Client does'nt respond. Staff holds client by arms and guides him to sit down.



```
29-2/13.8/GH2/N Client asks a question. Staff: "Do you know the answer?"
 Client: "Yes." Staff: "Then stop that."
 30-3/13.8/GH2/N Client asks an inappropriate question. Staff-do you know?
 Client answers. Staff asks question. Client answers question appropriately.
      31-4/13.8/GH2/SD Staff: "It's good you are sitting quietly. Would you like
 to set the table?" Client engages in self stimulatory behavior. Staff:
 "-----,stop." Client complys. Staff: "get up." Client remains seated.
 31-4a/PP Staff goes over to client and gives a physical prompt for the
 client to get up.
 32-5/13.8/GH2/N Staff: "Could you please come here for a second?" Client comes over. Staff: "Where does this go? In the garbage?" Client works at
 task. Staff: "you're not finished yet." Client returns to task and finishes
 33-6/13.8/GH2/N Staff makes a simple request. Client responds adequately.
 34-7/13.8/GH2/N Staff: "Could you please sit down? What about right here?"
Pulls out a chair. client sits down.
 _______
35-8/13.8/GH2/N Staff: "Could I help you,----?" Client responds.
36-9/13.8/GH2/N Staff: "Why don't you come and help dish up some ice
cream, ----?" Client responds and complys promptly and correctly.
 -----
37-10/13.8/GH2/SD Staff: "-----, you're finished." Client continues to
eat. Staff takes away plate and says "you can try again tomorrow, you got
most of it today." Client: "OK."
38-11/13.8/GH2/N Staff: "-----, could you put that away?" Client
responds, gets out of chair correctly and quickly.
39-12/13.8/GH2/N Staff: "go to the bathroom." Client gets up and leaves
40-13/13.8/GH2/N Staff: "What do you say,----?" Client thanks for
recieved food.
______
41-14/13.8/GH2/N Staff: "-----, pass that to,----." Client responds
Staff: "finish what is on your plate." Client had tried to reach for
42-15/13.8/GH2/N Staff: "Ask properly." Client asks properly. Staff assists client with food. Staff: "Could you please keep your mouth
closed,----- when you chew." Client responds.
43-16/13.8/GH2/N Client puts dishes on counter. Staff: "Please,----- put
those in the dishwasher." Client complys.
```



```
44-17/13.8/GH2/N Client: Food sticking out of his mouth. Staff: "Could you
 please put that in your mouth, ---- you look like a horse." Client
 responds adequately.
 45-18/12.8/GH2/N Staff: "What is this ----?" Client answers "A hole." Staff-"It's a rip, we should sew that tonight, OK?" Client: "OK."
                              ----------
 46-19/13.8/GH2/N Staff: "Why don't you come and help dish up some ice
 cream?" Client complys.
 47-20/13.8/GH2/N Staff: "... you're finished." Client continues to eat.
 Staff takes away plate and said: "You can try again tomorrow, you got most of
 it today."
48-21/13.8/GH2/N Staff: Could you put that away:" Client responds, gets
 out of chair correctly and quickly.
                                           ------
49-22/13.8/GH2/N Staff: "Go to the bathroom Client gets up and goes.
 50-23/13.8/GH2/N Staff: "What do you say ----?" Client says thanks for
food recieved.
51-1/13.8/2.35-3.35/V4/NO
No observations
52-1/13.8/4.30-5.30/GH3/PE Staff walking behind client held the client by
both elbows and pushed/guided the client from the kitchen area to the living
room area. Staff: "Here sit down for awhile." Client sat down in indicated
chair.
53-2/13.8/GH3/N Staff: "----, have you gone to the bathroom since you got home?" Client does not respond. Staff: "Could you please go now?" Client: "Sure." Promptly got up and left room.
54-3/13.8/GH3/N Staff: "How was work today,----?" Client: "Not bad."
Staff: "Why? Anything exciting happen?" client: "No, I don't like screws."
Staff: "What would you rather do?" Client: "I don't know." Staff: "----, are you talking to me or the floor?" Client: "I don't know what I would like
to do."
55-4/13.8/GH3/N Staff: "Why don't you sit down,----?" Clier.t played with
```

56-5/13.8/GH3/N Staff: "What would you like to do?" Client: "Daycare." Staff: "Maybe you could volunteer there. Is that up to me or you to find a job?" Client:"Me." Staff: "go get the yellow pages and we'll look up daycares." Client goes and gets the phone book and sits down and begins to look through the book. Staff: "Do you know where to find daycares?" Staff then assists in looking up daycares. Staff: "put the phone book on the

the furniture for awhile after sitting down for a few seconds then got up and



left.

table." Client complys. Staff: "go get a pen or pencil and paper." Client gets these materials. Staff: "Where do we live?" Client: "N.W." Staff: "Yes, we have to find one quite close."

57-6/13.8/GH3/PP Staff: "Tuck your tag in please." Client does'nt respond. Staff touches on the back of the shirt where the tag is. Client tucks the tag

58-7/13.8/GH3/N Asisisting client in looking for a daycare. Staff: "How many are you going to phone?" Client writes down phone numbers and addresses of daycares after staff points them out. Staff: "Are you sure you only want to look up two? What are you going to do?" Client: "Give them a call." Staff: "Call tomorrow then. And where are you going to keep the paper?" Client: "In my room." Staff: "How about in your purse?" Client: "My purse is in my room." Staff: "OK, go put it away." Client goes upstairs.

59-8/13.8/GH3/N Staff: "Sit down here." Staff: "Go change your shoes first." Client gets new shoes, sits down and changes them.

60-9/13.8/GH3/N Staff: "Do you want your mustache trimmed?" Client: "OK." Staff: "I'll do it for you now." Both leave room staff has client seated what do you think?" Client: "OK."

61-10/13.8/GH3/N Staff noticed client picking at tag. "Do you want me to cut that off for you?" Client stands still while he gets his tag cut off.

62-11/13.8/GH3/N Staff calls for client. Client comes downstairs. Staff: "Could you please put the phone book and the rest of it away?" Client puts

63-12/13.8/GH3/N Staff: "Is that garbage? Could you please put that in the garbage?" Staff: "Could you please put this away?" Client puts things away.

64-13/13.8/GH3/N Staff: "-----, could I please tell you something?" Client: "Sure." Staff: "I think the tie is on backwards." Client stands up.

65-14/13.8/GH3/SD Staff: "What do you have to say,----?" Client does'nt

66-15/13.8/GH3/N Staff: "So,----, what do you have to say?" Client does'nt reply. Staff: "Nothing? That's pretty rude."

67-16/13.8/GH3/N Staff: "----, have you been to Ontario?" client: "No."

68-17/13.8/GH3/N Staff: "-----, have you phoned your sister?" Client: "No, I haven't." Staff: "It's up to you." Client: "Yes."



69-18/13.8/GH3/N Staff: "Don't you have anything to say?" Client: "How was your day?" Staff: "Good. How was yours?" Client: "Good. Did screws." Staff: "Is that it? Look at me when you are talking." Client looks at staff. Staff: "Did you have lunch today? I saw -----." Client: "Really." Staff: "Are you still friends?" Client-"No." Staff-"Why?" Client: "I don't l.now." Staff: "Do you still like ----?" Client: "Yes." Staff: "You have to do things for yourself. Why don't you ask her to have lunch with you some day?"

70-19/13.8/GH3/N Staff: "----, when is your appointment?" Client: "I don't know." Staff: "You better find out." Client: "OK."

71-20/13.8/GH3/N Further verbal interchange. Then, client started a new topic. Staff: "What are you doing?" Client: "Talking about the past."

72-1/14.8/3.05-4.00/V4/NO No observations

74-2/14.8/V5/N Staff: "-----,I don't want you sitting down on the job."

75-3/14.8/V5/N Staff: "Let's do this properly, OK?"

76-4/14.8/V5/N Staff: "-----, why are boots untied? You are going to boots.

77-1/14.8/10.00-11.00/A/R Client was poured some water into a cup and then to the table and put them on the spill.

77-la/PP Then took the client's hand who spilled it and placed her hand on the towel and then the staff put her hand on the client's hand and prompted during the whole clean-up procedure.

78-2/14.8/A/PH Client scratching/picking at back of head. Staff notices after a few moments and grabs hand and forces it upon the table 78-2a/SD and also telling client to stop it at the same time.

79-1/14.8/3.10-3.20/A/PP Handi-bus driver came to pick up clients and told prompted again. However this did not work. Staff then verbally and tapped on his back a couple of times to get him to follow. Client followed.

79-la/BB At the door the client tried to turn back into the room. Three staff used body boundary to block the hallway leading into the room. Client pushed against one of the staff still trying to enter.



79-1b/CE So, staff asked him to do contingent exercise (sit-ups,5) to which he complied and then was helped to his feet by staff and they left. \_\_\_\_\_ 80-1/14.8/2.10-3.05/V2/N Client had some magazines on his workbench. Staff came over and took them away and removed them. Client then cursed under his breath and ceased working. Then he put his face into his hands and rested on the bench. Client stayed like this for about a minute. Staff then asked if "----, are working?" Client promptly began working. 81-2/14.8/V2/N Staff: "----, please get back to work, please. Right now -----. You have been playing all day." Client mumbles "I have been working." \_\_\_\_\_\_ 82-3/14.8/V2/N Client had boxes stacked up. Staff: "Please put those down." Client complys promptly and gets back to work. -----83-4/14.8/V2/N Client acting up because he had hurt his finger and then asked for a bandaid. Staff: "----, if you were busy working you wouldn't need all this extra stuff." Client began to work promptly. 84-5/14.8/V2/N Client got up to empty screws into another basin at another table. Staff: "That's not enough to leave your table for." Client dumps them in basin and begins to walk back to table. Staff: "Alright?" Client: "Yea, OK." And begins to work after sitting down. 85-6/14.8/V2/N Client: "Can I ger some more?" Staff looks around grabs a handful and puts them into client's container. 86-1/15.8/10.30-11.30/B/NO No observations. 87-1/15.8/2.45-3.45/V5/NO No observations 88-1/15.8/12.30-1.30/V2/NO no observations 89-1/18.8/1.30-2.30/V4/NO no observations 90-1/18.8/4.30-5.00/V5/NO No observations 91-1/18.8/11.30-12.00/V5/PP Staff taps client on shoulder."Could you please come here a second." Begins to walk by. Client follows staff into staff's office. 92-2/18.8/V5/N Client asked staff a question. Staff responded. Client proceeded with task.



- 93-1/18.8/2.15-3.10/V2/N Client walked in late to shop. Staff: "-----, where have you been?" Client: "I'm sorry." Staff-"That's OK." Client begins to walk back to table. Staff: "-----, please leave ----- alone and sit down." Clients both go to thier respective places.
- 94-2/18.8/V2/N Clients begin to run out of the room. Staff: "Hold it, hold it. Guys put your chairs and things away. Clients walked and put things away.
- 95-3/18.8/V2/N Staff: "Put your chair away." Client responds.
- 96-1/18.8/1.15-2.15/B/N Client began to move a stool from one area to another. Staff noticed this and shook her head and said not that one. Staff then went into a smaller room looked in and went into her office. Client then walked over to the small room, opened the door, walked in and took out a stool and walked back to work table and used the table for work.
- 97-2/18.8/B/PP Staff: "placed her hand on back of client's back and gently pushed in the direction she wanted them to move. Client willingly responded.
- 98-1/19.8/10.45-11.45/B/N Client was looking for a bin. Staff said something and pointed in direction of bin. Client went and got it.
- 99-2/19.8/B/N Client sitting in a chair stopped working. Staff shortly rushed out to client and explained and showed with her hands what she wanted the client to do.
- 100-3/19.8/B/N Client engaged in self-stimulating activity -- holding one hand over the other and rubbing thigh rather vigorously. Client did this conistently for about 45 min. No staff intervention. Staff walked in and out of room occasionally.
- 101-1/19.8/1.25-2.30 (-2.00-2.15)/V2/N Client got up and walked over to another client. Staff: "-----, could you sit down please, he is going around to pick them up." Client: "OK." Sits back down at work bench.
- 102-2/19.8/V2/N Clients bickering. staff: "I know you didn't not say anything. Enough is enough. Get back to work." Clients start working and ignore one another.
- 103-3/19.8/V2/N Client: "-----, I got a sliver." Gets up from workbench and walks over to staff. Shows staff. Both then go over to office to get something. ----- is asked to stay outside of the office by staff. He responds appropriately.
- 104-4/19.8/V2/N Client: "Can I go now?" Staff shook his head no. Client resumed work.
- 105-5/19.8/V2/N Client rocking back in chair. Staff: "-----, could you please sit properly in your chair with all four legs on the floor? It breaks the legs off the chair." Client sits properly in chair.



106-6/19.8/V2/N Staff: "You can go to th nurse's office now." Client got up and walked out. 107-1/19.8/2.30-3.30/V5/N Staff: "Come on now, I think you girls can move a little faster than that." Client began to work noticeably faster right 108-1/19.8/4.15-5.15/GH3/N Client looking around ernestly. Staff: "What do

you want -----? Quit burping. What do you say?" Client: "Excuse me." 109-2/19.8/GH3/N Staff:"Come on." Both run upstairs. "Pick them up." Client and Staff run downstairs with client carrying laundry.

110-3/19.8/GH3/N Client coughing. Staff: "Cover your mouth when you are coughing."

111-4/19.8/GH3/N Staff: "Come sit down." Client immediately sits down. Client walks off after about 20 seconds.

112-5/19.8/GH3/PP Staff: "OK sit down." Gives client a physical prompt to sit. Client promptly sits down.

113-6/19.8/GH3/N Staff: "Could you please take your sweather off now.?" Client: "OK" and went upstairs promptly. 

114-7/19.8/GH3/N Staff: "----- good behavior. Come I have something for you." Client follows immediately.

115-8/19.8/GH3/N Client coughs. Staff: "Cover your mouth when you cough." Client put her hand up to her mouth ------

116-9/19.8/GH3/N Client held hand by face. Staff: "-----, get your hand away from your face." Client complies and is rewarded for good behavior.

117-10/19.8/GH3/N Staff: "----, go collect all your dirty clothes." Client starts upstairs. Staff: "Stop there." Client: "What? I don't have that many dirty clothes." Staff: "I want you to collect all your dirty clothes from under the bed, in the closet, etc. Right?" Client: "Yea, I will just collect those clothes that are dirty. \_\_\_\_\_\_

118-11/19.8/GH3/N Staff: "-----" calls for client three times. Client comes from upstairs. Staff: "Why don't you go sit down?" Client responds adequately.

119-12/19.8//GH3/N Staff: "Why don't you take your cup and put it on the dishwasher?" Client gets up and takes cup to dishwasher. Staff: "Thanks ----- "

120-13/19.8/GH3/SD Client: "I have to do laundry." Staff: "What did I tell you? ----- will be done in about 15 min." At this point staff find out



from other staff that the client had gone downstairs to the laundry room and taken out another client's laundry prematurely. Staff: "OK, you might as well go do your laundry now that you took out ------ things. Next time listen when staff talk to you then you should have known what I wanted you to do." Client: "I'm sorry."

121-1/20.8/4.45-5.45/GH1/N Staff suggested ----- cook dinner because it was his turn. Client argued a bit at first but later agreed.

122-2/20.8/GH1/N Staff: "I don't think you are supposed to use that one,

122-2/20.8/GH1/N Staff: "I don't think you are supposed to use that one, use this one. Client: "No, it's this one." Staff: "No." Client: "OK, I'm not going to argue with you."

123-3/20.8/GH1/N Staff grabbed box from client. "No." Client: "Why don't we destroy it now?" Staff: "We need the instructions first."

124-4/20.8/GH1/N Staff: "Don't use your hands please." Client-"OK." Staff: "What are you supposed to use?" Client: "I was just moving it over not flipping it."

125-5/20.8/GH1/N Client: "What else do you want?" Staff: "Rice." Client: This is the rice here." Staff: "No, not that." Client: "Well, this is the rice." (Snoves container in a bad temper). Staff: "It's in the fridge." Client: "Oh, this yea." (gets it out).

126-6/20.8/GH1/N Staff: "You're spilling." Client: "No shit."

127-7/20.8/GH1/N Staff: "Don't put too much." Client: "I won't don't worry."

128-8/20.8/GH1/N Staff: "Don't forget to turn the fish." (points) Client walks over and turns the fish.

129-9/20.8/GH1/N Staff: "You have to flip the fish so it doesn't burn." Client-"That's a good idea." Client goes and flips the fish.

130-10/20.8/GH1/N Staff: "Did you flip them?" Client-"Yea, I already flipped them."

131-11/20.8/GH1/N Staff: "What do we do now? We need plates to set the table." Client gets plates from cupboard.

132-12/20.8/GH1/N Staff: "You've left things on the stove here." Client rushes back to the stove.

133-13/20.8/GH1/N Staff: "That's hot why don't you put it down." Client doesn't respond and continues to handle the hot object.

134-14/20.8/GH1/SD Staff: "No, no, no -----. Take a spoon and get it out." Client responds properly.



135-15/20.8/GH1/N Staff: "Clean this please." Client: "OK." Cleans counter. ------136-16/20.8/GH1/N Staff: "Wipe the counter over here please and this pan." Client does this. 137-1/20.8/2.30-3.30/V3/N Staff: "Did you put your matt away?" Client responds promptly. 138-2/20.8/V3/N Staff: "Go back to your work station and wait." Asks this twice. Client goes back to station. 139-1/20.8/12.25-1.25/B/BB Food put out. Client tried to get to it. Staff put herself between food and client 139-la/PP and began to push client away gently. 140-2/20.8/B/PE Client approaching quickly to food. Client was grabbed by staff and led away physically by hands on arms. 141-3/20.8/B/BB Staff guided client in desired direction by sticking chest Out 141-3a/PP and through physical contact steered the client in this manner. Staff then grabbed client's wrist and directed her into a 142-4/20.8/B/PP chair to sit down. 143-5/20.8/B/N Moved a client from the chesterfield to a wheelchair. Staff grabbed both wrists and guided the client into the wheelchair. 144-1/20.8/1.40-2.35/V1/NO no observations. 145-1/20.8/10.30-11.30/V5/N Staff: "If you're not doing a customer where are you supposed to be?" Client goes back to proper place. 146-2/20.8/V5/N Staff: "C'mon -----, over there - points in direction where he is supposed to be." Client goes to respective place. 147-3/20.8/V5/N Staff: "Don't take anything away until I get there." 148-1/21.8/1.00-2.00/B/BB Client started walking towards another client. Staff intervened using body boundary 148-la/PH with physical contact using hands on arms. 149-2/21.8/B/PP To get client to sit in desired chair staff held onto



shoulders and guided the client gently into place.

pushed in desired direction.

hands under her arms and lifted her up to standing position.

150-3/21.8/B/PP Client was Lying down on mattress. Staff went over 1 's

150-3a/PP Then guided client out with hand on back and shoulder and ger .1y

151-4/21.8/B/PP Staff guided client into a chair by grasping both client's arms and negotiating them into a chair. 151-4a/PP Pushed downwards on arms when client is positioned to sit in chair. 152-1/21.8/2.20-3.20/V3/N Staff: "Done? You can take it to the other workshop." Client does so. \_\_\_\_\_\_\_ 153-2/21.8/V3/N Staff: "----, come here for a second." Client goes over. 154-3/21.8/V3/N Staff: "-----, come back here, come back here -----." Client responds after six requests to return to his work area. \_\_\_\_\_\_\_ 155-4/21.8/V3/N Staff: "Come back to your shop now -----" Client follows staff back. 156-5/21.8/V3/PP Staff: "----- come back here." Staff used 5 requests before client returned to work area. Then staff touched client on shoulder to prompt him to sit. 157-6/21.8/V3/N Staff: "----- sit down please." Client responds immediately. 158-7/21.8/V3/N Staff goes to client and says "stay" and gives him good signal. Client responded well to this request. \_\_\_\_\_\_ 159-8/21.8/V3/N Staff: "----- go sit down." Client goes and sits down. 160-9/21.8/V3/BB Staff: "-----, go back to your work station." Staff then gets up and starts walking towards client. Client quickly upon seeing this goes back to work station and sits down. 161-1/21.8/3.50-4.50/V5/N Client requested to go to the washroom. Staff-"Do you really have to go?" Client-"Yes." Staff-"You better go then."

162-2/21.8/V5/N Staff-"We'll do it in the morning, OK? Come with me OK? -----." Client follows staff. 163-3/21.8/V5/N Staff: "You're working in the back,-----. Stay in the back and points in desired direction." Client responds correctly. 164-4/21.8/V5/N Client starts walking toward another client. Client then begins back to work station. Staff: "Get back to your work station." -----165-5/21.8/V5/BB Client wanders from work station. Staff gets up and begins to follow client while telling the client to get back to his work station. Client responds adequately after being told twice and after being followed around. Staff sort of "chased" client back to station.



#### Restrictive Procedures 40

166-6/21.8/V5/N Staff: "Take that tray and come this way, ----." Client responds adequately. -------167-7/21.8/V5/N Staff: "-----, get back to your work station." Took three requests before client responded correctly. 168-8/21.8/V5/N Staff: "---- put on your shoes." Client responded correctly. 169-9/21.8/V5/N Client wanders away from work station. Staff points to work station client responds rather slowly to this gesture. 170-10/21.8/V5/N Staff: "Clean up your work stations." Clients respond well. 171-11/21.8/V5/N Staff: "-----, put your tray down here-points to spot on desk. Client responds correctly. 172-1/22.8/2.15-3.15/V3/N Staff: "---- will you get to work please?" Client responds correctly. 173-2/22.8/V3/N Client wandering around. Staff: "-----, sit down please." Three requests. Client does'nt respond. Staff stands up and looks at client and tells him to sit. Client approaches staff and says something. Staff responds. Client goes back to work station. 

