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INSTRUCTOR CHARACTERISTICS

AND

INMATE CO-OPERATION

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A C K N O W L E D G E M E N T S

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CURRICULUM STUDIORUM

Joseph Lorenzo Paulhus was born August 5, 1919, in Waterville, Quebec. He received his Bachelor of Social Science degree from St. Patrick's College, University of Ottawa, 1967.

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INTRODUCTION

Rates of recidivism are the measurements generally used to evaluate the effectiveness of prison programs.

The effect of human interactions between those involved in a prison program does not appear to receive much attention, particularly when they could, in effect, modify the recidivism rate attributed to the program itself. A prison program designed to influence inmates so that they can be re-integrated into society should take into account the personal influence of those persons involved in the program, the change agent, and the client, as well as the methods used to achieve the goals of the program.

The object of this study was to shed some light on the penitentiary workshop, specifically the interaction between its personnel and the inmates assigned to it.

Chapter one will review the literature that was felt to be directly concerned with the problem, and from which the hypothesis that directed this thesis arose. Chapter two provides a description of the sample, the independent and dependent variables, the statistical treatment of the data and the procedures used. In chapter three the results are presented, interpreted and discussed. The thesis ends with a summary and conclusion which is followed by the appendices.

CHAPTER I
REVIEW OF THE LITERATURE

1. Inmate Codes

The topic which has received most attention from social scientists about imprisonment is the social organization of prisons, and more specifically, the informal social system of prisons (11,pages 216-17). The latter refers to the pattern of social relations - roles, norms, shared beliefs, lines of communication, and co-operation and so on - which may develop among members of a group without being prescribed or defined by the formal rules of the group (11,page 218).

Donald Clemmer's book, The Prison Community, published in 1940, was the first major work in this area. At the Illinois State Penitentiary during the thirties, he used his experience gained there to describe human relations at that institution. A main feature of the inmate social system, according to Clemmer (2,pages 861-62), is the inmate code, a distinct set of unwritten rules existing alongside the institutional rules. Loyalty to fellow inmates and non-co-operation with prison staff are the major prescriptions of this code.

Two different explanations have been proposed for

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the origin and maintenance of the inmate culture. The first, exemplified by Irwin and Cressey, (12, page 142) says that the values of the inmate social system are similar to the values most prisoners hold before incarceration. The opposition to the authority of staff, for example, reflects an opposition to pro-social authority in general in or out of prison.

The second view holds that certain general features of imprisonment are responsible for the emergence and maintenance of the inmate social system. It sees the inmate code as a coping mechanism which develops in order to maintain an adequate level of self-esteem in the face of the degrading conditions that institutionalization in general, and imprisonment in particular, entail. (18) (10, chap. 3) Thus prisonization, the acceptance of the values and norms of the inmate social system, is not merely a manifestation of a criminal culture which exists outside the prison. (11, page 222)

Those knowledgeable about corrections generally acknowledge the existence and pervasiveness of the inmate social system, with the following three qualifications:

- 1) The strength of the prison code is not uniform among the institutions. For example, in Scandinavia, Cline presented hypothetical examples of behaviour indicating

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opposition to official rules to inmates in fifteen correctional institutions and asked them to estimate the proportion of their fellow inmates who would approve of this behaviour. He found that when the fifteen institutions were ranked in terms of "anti-staff climate", institutions having the most experienced offenders, that is, offenders with the longest criminal records, had the most anti-social climate.(3,page 173) Grygier(8,page 29) also noted the variability of pro-social climates among institutions.

- 2) Nor is the prison code uniformly accepted by all inmates in a single institution. For example, on the basis of participant observation, Shrag saw five different role categories within the inmate social system. The allocation of an inmate to a specific role, in part, depended on the inmate's degree of internalization of the prison code. Within this framework, the "right guy" was seen as the most socialized and consequently most anti-social towards society outside the walls, and the "square john" was seen as his obverse.(11,page 222) Within single training schools, Grygier(8,page 62) found that the existence of a pro-social climate within a

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given unit depended on the staff-inmate ratio of that unit. Prisonization was also found to depend on the time sample studied. In a Western United States Reformatory, Wheeler (20, pages 697-712) used a cross sectional design to examine the relationship between prisoner attitudes and the length of the sentence the given prisoner had yet to serve. Using hypothetical conflict situations similar to the ones used by Cline and Wheeler (3) he found that pro-staff, that is, pro-social attitudes were mostly manifested during the early and late phases of imprisonment. The normative powers (13, page 292) of the prison code seems to be the strongest during the middle phase of institutionalization.

- 3) While interaction between inmate and staff is controlled by the social system of each, relatively conflict-free interaction - communication between the two systems does occur (6, pages 360-61).

2. Influence of Non-Professional Staff

Cressey notes that while the goals of retribution, protection, deterrence, and rehabilitation have been an increasing emphasis put on rehabilitation since the early

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1950s. This change in emphasis has led to changes in the organization of prisons, and to the development of treatment oriented institutions (4, page 81).

He finds that within this orientation there are two major approaches to the treatment role of the non-professional staff. According to the first approach, their primary function is to act as referral agents to qualified professional staff. On the basis of consultation with the treatment staff regarding inmate problems, and appropriate "common sense" diagnosis, they are to refer each inmate to the properly qualified professional helper. The second approach holds that all staff should participate in treatment, and "...deal with inmates' minor emotional problems, advise and encourage them to 'talk-out' their difficulties." (4, page 94)

Preoccupation with problem cases which disturb the smooth running of the prison (15), social class differences between helper and helpee, (10) and the lack of evidence demonstrating that desired client change was consequent to, and associated with, the lengthy professional training of the therapist were some of the research findings which questioned the treatment by professionals approach in and out of correctional institutions (1, page 439).

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The evidence was more encouraging regarding the therapeutic effectiveness of lay persons.

In his study of training school residents and young adult offenders in Ontario (8, page 62) Grygier found that it was the person who was in daily contact with the inmate, such as the house supervisor, that had the greatest positive impact upon delinquents. He suggested that if the distance in education and social class were to increase too much by the hiring of "better educated" staff, communication and the therapeutic effectiveness of line staff might be reduced. Glaser in his studies of the effectiveness of a prison and parole system, based on data obtained from selected Federal and State Correctional Units, had similar findings with adult prisoners. He suggested that staff influence on inmates varied directly with staff manifestations of characteristics such as sincerity and similarity to the inmate's interests, the same characteristics that make a person likeable in non-prison human relationships. He also concluded that educational and social class differences between inmates and treatment staff members impeded treatment and reported work supervisors to be

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specified by both inmates and parolees as having made the greatest contribution towards successful inmate rehabilitation.(7, chaps.6,9,11,12)

Outside of the correctional area, Truax & Carkhuff (19, chap.3) reviewed the characteristics of the effective counselor, both professional and non-professional, and found that the communication of accurate empathy, non-possessive warmth, and genuineness, were the necessary conditions for desired client change. Duggan(5) and Murray(16) surveyed fifty years of complex literature on teacher effectiveness and concluded that the mentally healthy teacher, best described in terms of Maslow's notion of self-actualization, (14) gives the best summary description of the effective teacher.

Considering opinion change research as relevant to the human relations part of counselling, Strong reviewed the opinion change literature, and found that desired opinion change was influenced by the target person's perception of the communicator's expertness, sincerity, and openness and similarity to the target person(17).

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3. Summary and Basic Hypothesis

To summarize most of the foregoing, it is possible to conceptualize the process of communication as a form of counselling. This permits the instructor and teacher to be viewed as an agent of change whose characteristics of expertness, genuineness and similarity are, at least in part, responsible for some degree of positive change in audience attitude. Because of the pervasive nature of the inmate culture of suspiciousness, or not co-operating with staff, complying with a request to co-operate can be viewed as a desirable change of inmate attitude. The degree of such co-operation could provide a measure of such change.

During the course of another project(9) it was noted that the inmate variability in responding to a questionnaire about inmate-inmate relationships provided two such measures. These two scales, hereafter referred to as co-operation 1 and co-operation 2 were the criteria in the study. What follows is a description of the attempt to find if a relationship existed between these criteria and various instructor characteristics. Specifically, it is hypothesized that there is a positive linear relationship between instructor characteristics of expertness, genuine-

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ness, instructor-inmate similarity, and of both co-operation 1 and co-operation 2.

The next chapter describes the experimental design used to test this general hypothesis.

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CHAPTER II

EXPERIMENTAL DESIGN

This chapter describes the method whereby the hypothesis proposed in the preceding chapter was tested.

It begins with a description of the samples, the independent and dependent variables. This is followed by the presentation of the procedures used and ends with a description of the statistical treatment of the data.

1. Samples

The samples consisted of the shop instructors and the inmates working in their shops of two medium security institutions located in the Ontario Region of the Federal Penitentiary Service of Canada, hereinafter referred to as Institution A and Institution B. At the time of the study each shop had at least five inmates in it and each of these had been employed in the shop for at least ten weeks.

Institution A is described as having an industrial program and a capacity for 454 inmates.(1, page 2 Annex 2) The actual count of inmates on December 6, 1970, the day the gathering of data began, was 383 inmates whose ages (as of last birthday) ranged from 22 to 72 years with a median of 37 years, and a mean of 37.6 years. The standard deviation was 9.6 years.

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One hundred and sixty-four inmates were employed in nine shops under two supervisors and fifteen instructors. The remaining inmates were employed on administrative and housekeeping details. The description of the shops, and the inmates employed in them is found in Appendix 1. The distribution by employment of all the inmates, including those not in the sample, is found in Appendix 2.

Institution B is described as having a vocational program and a capacity for 394 inmates. (1, page 2 Annex 2) The actual count of inmates on January 8, 1971, the day the gathering of data began, was 362 inmates whose ages (as of last birthday) ranged from 19 to 68 years with a median of 28 years, and a mean of 30.0 years. The standard deviation was 9.1 years.

One hundred and thirty inmates were employed in the shops under two supervisors and eleven instructors. The remaining inmates were employed on administrative and housekeeping details. The description of the shops, and the inmates employed in them, is found in Appendix 3. The distribution by employment of all the inmates, including those not in the sample, is found in Appendix 4.

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2. Independent Variables

The independent variables in this study were the instructor characteristics of expertness, genuineness, and similarity to inmates, hereafter referred to as similarity.

Expertness: Trade qualification and skill-in-trade were the two dimensions of expertness assessed in this study. They were obtained by means of a structured interview with each of the supervisors¹, where the writer asked the supervisors to rank the instructors along a five-point forced distribution scale for both dimensions. The scale, modelled on Grygier's technique(3), yielded an approximately normal distribution of rankings for each dimension with a mean of 3 and a standard deviation of 1. Appendix 5 illustrates the method used. The raw data is presented in Appendix 8.

Inter-rater agreement of each dimension, for each institution, was estimated by computing Spearman's Rank Difference Correlation Coefficient (RHO) for the Supervisors Ratings². There was no statistically significant relationship between the supervisors' ratings at Institution A. The relationships were significant at the 5% level at Institution B. Information on the concurrence of supervisors'

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ratings is summarized in Table 1.

¹No personal information was obtained about the supervisors.

²Both supervisors at each institution seemed equally familiar with the instructors they were asked to rate.

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Table 1

Inter-Rater Agreement for Instructor Trade

Qualification and Skill-in-Trade:

Institutions A and B.

INSTITUTION	NO. OF INSTRUCTORS	SPEARMAN'S RHO	
		TRADE QUAL.	SKILL -IN- TRADE
A	15	.022	-.373
B	11	.594	.645 ^x

^x Significant at $p < .05$

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Similarity: On the basis of the literature about staff-inmate communications cited in the previous chapter, formal education, in terms of last grade completed, was used to measure inmate-instructor similarity. Inmate formal education was estimated as grade seven and uniform in all shops.³ It was postulated that the higher the instructor's education the less similarity there would be between him and the inmates in his shop.

Last school grade completed by the instructor was taken as recorded in his file at Penitentiary Service Headquarters. These values were supported by verified documentation with two exceptions, in Institution A, where this information was not recorded. These two instructors were credited with the education they claimed in a parallel study.

(4) The education of instructors at Institution A had a range of 3 years, a mean of 8.9 years, and a median of 8.0 years with a standard deviation of one year. At Institution B the range was 8 years with a mean of 10.2 years, a median of 10.0 years, and a standard deviation of 2.5 years. The raw data appears in Appendix 9.

³Personal communication between John Donald Weir, Director of Education, Canadian Penitentiary Service, and the writer.

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Genuineness: While noting that a number of studies have found a relationship between various measures of counsellor well-being and desired client change, there is a dearth of information relating a counsellor's personality characteristics to his ability to communicate the facilitative conditions for change of unconditional positive regard, empathic warmth, and genuineness. (2)

Foulds postulated that various aspects of the counsellor's well-being were implicit in Maslow's concept of the self-actualizing person, and that Shostrom's Personal Orientation Inventory (P.O.I.)(6) would be an adequate measure of this concept. He hypothesized that there was a positive relationship between the counsellors P.O.I. scores and their ability to communicate facilitative conditions. This was tested by "sophisticated judges", rating taped counselling interview segments of thirty graduate students doing their counselling practicum. He found that ten of the twelve scales of the P.O.I. related significantly to genuineness, six of these also related significantly to empathic understanding. No relationship was found with positive regard. He concluded that the P.O.I. provided an adequate measure of the

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counsellors ability to communicate the facilitative condition of genuineness. (2)

The P.O.I. ⁴ consists of 150 mostly self-descriptive statements requiring "yes" or "no" answers. The subject is urged to answer all the questions. The test was hand-scored by means of a stencil for each of the fourteen scales. The author suggests that fifteen or more blank or double marked items will invalidate the inventory. The reading difficulty level of the test was not in the manual but Shostrom claims that subjects with less than high school education have no difficulty understanding the items.

The ten scales of the P.O.I., found to be significantly related to the judges' ratings of genuineness by Foulds, include all 150 items of the test ⁵. Table 2 extracted from the manual presents a short description of each of the ten scales, with the number of items included in each scale. (7)

⁴ The references given in the manual are Maslow's Motivation and Personality, New York, Harper, 1954, and Towards a Psychology of Being, New York, Van Nostrand, 1962. The writer found M. Eloise Murray's exposition of the self-actualized person the clearest (An explanation of the Relationship of Self-Actualization to Teacher Success, an unpublished Master's thesis, Pennsylvania State University, 1966, p. 4-14).

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Table 2

Description of the 10 P.O.I. Scales Used in the Study

Number of Items	Symbol	Description
I. Inner Score		
23	I	INNER Measures whether reactivity orientation is basically toward others or self
II. Sub-Scales		
26	SAV	SELF-ACTUALIZING VALUE Measures affirmation of a primary value of self-actualizing people
32	Ex	EXISTENTIALITY Measures ability to situationally or existentially react without rigid adherence to principles
23	Fr	FEELING REACTIVITY Measures sensitivity to responsiveness to one's own needs and feelings
18	S	SPONTANEITY Measures freedom to react spontaneously or to be oneself

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Number of Items	Symbol	Description
16	Sr	SELF REGARD Measures affirmation of self because of worth or strength
26	Sa	SELF ACCEPTANCE Measures affirmation or acceptance of self in spite of weaknesses or deficiencies
9	Sy	SYNERGY Measures ability to be synergistic, to transcend dichotomies
25	A	ACCEPTANCE OF AGGRESSION Measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial and repression of aggression
28	C	CAPACITY FOR INTIMATE CONTACT Measures ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations

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Because the instrument is relatively new, Appendix 6 acquaints the reader with the content and interrelationship of the scales. An examination of the scoring scheme shows that all items are common to more than one scale. This explains in part the high intercorrelation between the ten scales ranging from $-.02$ to $.71$ with a median of $.34(7)$.

The manual reports only one reliability study (5) where forty-eight San Francisco State College undergraduates were retested after one week's interval. The coefficients ranged from $.85$ for the Ex scale to $.55$ for the A scale with a median coefficient of 74.5 .

Because of the expected difficulties, due to interference with the institution's routine, no attempt to retest was made in this study.

3. Dependent Variables

Inmate response to a sociometric device obtained as part of another study(4) yielded two criterion measures: co-operation 1 and co-operation 2.

The measurement of participation labelled co-operation 1 was based on the appropriate response to each of the twenty-four questions comprising the sociometric device used. Each appropriate response received a score of

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one. Thus each inmate obtained a score between zero and twenty-four.

When the scores of every inmate in a shop were summed, and expressed as a proportion of the maximum possible score for the shop, the resulting coefficient was taken as one crude index of co-operation for each shop.

The second measure of participation labelled co-operation 2 was obtained in the following manner:

Inmates who:	Received the score of
a. returned to their ranges, an option open to all	0
b. stayed but either refused to accept the test blank, or left it empty	1
c. stated reasons for b	2
d. responded to some of the questions	3
e. responded to all of the questions	4

It was assumed that an increase in numerical scores corresponded to an increase in co-operative behaviour. The mean score of each shop was used as another crude index of co-operation for each shop.

4. Procedure

In sequential order the data was gathered as

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follows:

In Institution A, where the layout allowed, the inmates were seen in their workshops. The first workshop was suggested by a supervisor and each of the following shops was selected on the basis of its being closest to the last shop completed.

In each workshop, on arrival of the team, consisting of two professors and two graduate students, the instructor told the inmates that the team was there to do research, and that any inmate who did not wish to hear what the team had to say could return to his range, he added that he would prefer them all to stay.

After the introduction, the director of the project told the inmates that if they participated in the study they would be contributing, not only to science, but also to the possible practical benefits arising from the study, such as better understanding of the human relationships within shops. He then explained the nature of the test and the measures taken to ensure the anonymity of each individual inmate.

The tests were then distributed. The three other members of the research team monitored the test and supplied explanations concerning the procedure to the individual

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inmate requesting it.

When the returned test was blank, the monitor asked the inmate why. If the reason or reasons were given these were recorded on the test.

The above procedure was modified for Institution B. The Deputy Warden suggested that the layout did not lend itself to going from shop to shop. Therefore, the inmates were moved by the custodial staff, with the instructors accompanying them, workshop by workshop, to a classroom.

Following the entrance of the research team into the classroom the procedure was identical to that followed in Institution A.

It must be noted that the team had no knowledge of any of the information that might have been given to the inmates prior to being introduced to the inmates in either institution. Appendix 10 summarizes the data that was gathered.

The P.O.I. was administered to the instructors of Institution A on April 2, 1970, and to the instructors of Institution B on July 2, 1970. The three months delay was caused by the writer's inability to go to Institution B on a date suitable to the institution. Both these dates are

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Thursdays, the day set aside weekly for staff training.

The conditions of testing were alike in both institutions. Prior to the test the writer visited each of the instructors in his shop to solicit his participation in this project. They all agreed. The instructors were then assembled in a classroom, each one seated at a desk with a P.O.I. test booklet and answer sheet on it. They were requested to read instructions, following which questions were invited and answered. The test was completed in forty-two and forty-five minutes at Institutions A and B respectively. Appendix 7 summarizes the raw data.

Description of the instructors participating in the study, in terms of the 10 P.O.I. scales used, as well as the comparable values reported in the manual⁶ are presented in Table 3.

⁶ These values were obtained from the profile sheet purporting to be "constructed from adult norms". The deviation from the norm is given on page eight of the manual.

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The supervisor ratings of the instructors in terms of first, trade qualification, and then, skill-in-trade, were obtained on the same day as the respective instructors were administered the P.O.I.

The supervisor was given a list containing the names of all shops and the instructors in them and asked to rate the instructors as illustrated in Appendix 5. The raw data is presented in Appendix 8.

Arrangements were made with the Canadian Penitentiary Service Headquarters to verify the formal education and age of the instructors participating in the study as recorded at that Headquarters. Verification was carried out by the writer during the month of May 1970. The information is summarized in Appendix 9.

TABLE 3

DESCRIPTION OF INSTRUCTORS PARTICIPATING IN STUDY
IN TERMS OF 10 P.O.I. SCALES USED

ALE	NORMS FROM PROFILE SHEET N-?		INSTITUTION A N-15				INSTITUTION B N-11				BOTH INSTITUTIONS N-26			
	Mean	SD	Range	Median	Mean	SD	Range	Median	Mean	SD	Range	Median	Mean	SD
I	87.0	14.0	44.0	80.0	77.3	11.0	46.0	82.0	79.6	6.0	57.0	81.0	78.3	9.2
SAV	20.2	3.0	11.0	19.0	18.3	3.7	9.0	20.0	19.4	2.4	11.0	21.0	18.8	3.2
Ex	21.8	5.0	17.0	14.0	16.7	5.0	7.0	20.0	18.5	2.6	17.0	17.5	17.5	4.2
Fr	15.6	3.1	11.0	13.0	14.1	3.2	7.0	15.0	14.3	2.3	11.0	14.0	14.2	2.8
S	11.6	2.9	10.0	12.0	11.6	3.1	10.0	12.0	11.4	2.2	11.0	12.0	11.5	2.8
Sr	11.8	2.5	9.0	12.0	11.9	2.3	8.0	12.0	11.9	2.2	9.0	13.0	11.9	2.2
Sa	17.2	4.0	15.0	14.0	15.4	4.1	10.0	15.0	15.7	2.8	15.0	18.0	15.5	3.6
Sy	7.3	1.2	5.0	7.0	6.4	1.3	4.0	7.0	6.6	1.2	5.0	7.0	6.5	1.3
A	16.5	3.1	11.0	15.0	16.5	3.3	10.0	16.0	16.2	2.7	12.0	14.0	16.0	2.9
C	18.6	4.0	11.0	18.0	17.0	4.0	9.0	17.0	17.7	2.5	16.0	17.5	17.3	3.5

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5. Statistical Treatment

The independent variables $X_1, X_2, X_3 \dots X_{13}$, were the ratings given to the instructors on trade qualification and skill in trade, the ten P.O.I. scores, and the recorded education in years. In cases where there were two instructors in a shop, $X_1 - X_{13}$ represent a single combined measure by averaging the instructor's given ratings, P.O.I. scores and recorded education.

The two measures of participation, the dependent variables, were co-operation 1 (Y_1) and co-operation 2 (Y_2). The manner whereby these measures were obtained was described in Section 4.

For each individual inmate in the shop there was a Y_1 and a Y_2 score, but for all the inmates in a given shop the X values were the same. That is, inside each shop the X values were constant. It was postulated that the variance in the Y_1 and Y_2 scores was explained by the X scores. The assumptions underlying this model will be considered again in the discussion.

Pearson's product moment correlation coefficient was used to test the relationship between the independent and dependent variables. For each instructor there were

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thirteen independent variables, each of which to be related to the dependent variables co-operation 1 and co-operation 2.

In the present study $p = .05$, for a one-tailed test, was adopted as the acceptable level of statistical significance at which hypotheses were considered to be verified. Thus, for statistical significance, a correlation coefficient had to have the predicted sign, and when its absolute value was divided by its standard error, the result had to equal or exceed 1.645.

6. The Specific Hypotheses

For each institution the specific statistical hypotheses were as follows:

a. There is no significant positive correlation between trade qualification (X_1), skill-in-trade (X_2), the I(X_3), SAV(X_4), Ex(X_5), Fr(X_6), S(X_7), Sr(X_8), Sa(X_9), Sy(X_{10}), A(X_{11}) and C(X_{12}) scales of the P.O.I., and co-operation 1 (Y_1).

b. There is no significant negative correlation between the instructor's recorded education (X_{13}) and co-operation 1 (Y_1).

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c. There is no significant positive correlation between trade qualification (X_1), skill-in-trade (X_2), the I(X_3), SAV(X_4), Ex(X_5), Fr(X_6), S(X_7), Sr(X_8), Sa(X_9), Sy(X_{10}), A(X_{11}), and C(X_{12}) scales of the P.O.I., and co-operation 2(Y_2).

d. There is no significant negative correlation between the instructors' recorded education⁽⁺¹²⁾ and co-operation 2(Y_2).

The following chapter will be devoted to the presentation and discussion of the results, weaknesses of the research design, and suggestions for further research.

EXPERIMENTAL DESIGN

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CHAPTER III
RESULTS AND DISCUSSION

1. Results

In Institution A: the I, Ex, and Fr scales of the P.O.I. and education in years were positively correlated with the criterion co-operation 1 at $p = .01$; SAV, S, Sa, and Sy scales correlated with the same criterion at $p = .05$. There was no significant correlation between the criterion and trade qualification, skill-in-trade and the Sr and A and C scales.

The I, SAV, Ex, Fr, Sa, and Sy scales of the P.O.I. and education in years were positively correlated with the criterion co-operation 2 at $p = .01$, trade qualification, and the S and C scales correlated with the same criterion at $p = .05$. There was no significant correlation between the criterion and skill-in-trade, and the Sr and A scales.

In Institution B and skill-in-trade and SAV, Fr, Sr, Sy, and A scales of the P.O.I. were positively correlated with the criterion co-operation 1 at $p = .01$, Sa, and C scales and education in years were negatively correlated with the same criterion at $p = .01$. There was no significant correlation between the criterion and trade

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qualification and I, Ex and S scales.

Skill-in-trade and the SAV, Fr, Sr, Sy and A scales of the P.O.I. were positively correlated with the criterion co-operation 2 at $p = .01$, Sa and C scales and education in years were negatively correlated with the same criterion at $p = .01$. There was no significant correlation between the criterion and trade qualification, and the I, Ex and S scales. Correlation coefficients between the independent and dependent variables are presented in Table 4.

In terms of the theoretical framework proposed, in Institution A neither of the two indices of expertness correlated with the criterion co-operation 1; one of them, trade qualification was significantly correlated with the criterion co-operation 2.

Of the ten indices of genuineness, seven correlated positively with the criterion co-operation 1 and eight to the criterion co-operation 2. The remaining correlations did not reach the required $p = .05$ level of significance.

The single index of instructor-inmate similarity was positively correlated with both criteria.

In Institution B, one index of expertness, skill-

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in-trade, was significantly correlated with both criteria. The index, trade qualification, correlated with neither.

Of the ten indices of genuineness, five correlated positively, and two negatively with both criteria. The remaining three correlations did not reach the required $p = .05$ level of significance.

The single index of instructor-inmate similarity correlated negatively with both criteria.

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TABLE 4

Correlation Between Instructor
Characteristics and the Criteria
Co-operation 1 and Co-operation 2

Instructor Characteristics	Institution A N=146 ¹		Institution B N=130	
	Co-oper- ation 1	Co-oper- ation 2	Co-opera- tion 1	Co-oper- ation 2
Trade Qualification	.098	.210*	-.057	-.058
Skill-in-Trade	-.015	.036	.378**	.430**
POI Scale				
I	.214**	.265**	.135	.139
SAV	.164*	.250**	.464**	.523**
Ex	.237**	.243**	-.073	-.101
Fr	.235**	.268**	.227**	.248**
S	.176*	.182*	.112	.152
Sr	-.044	.050	.456**	.520**
Sa	.165*	.214**	-.265**	-.305**
Sy	.169*	.336**	.226**	.287**
A	-.082	-.055	.340**	.356**
C	.151	.209*	-.350**	-.357**
Education in Years	.229**	.255**	-.300**	-.346**

** p. = .01

* p. = .05

¹For descriptive purposes N=164
The coefficients are based on N=146, see appendix I
for explanation.

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Thus, of the fifty-two separate hypotheses of the study (thirteen independent variables, two criteria, two institutions), thirty were confirmed suggesting that further research along the lines followed here may also prove fruitful.

2. Further Analysis

a. Instructor - inmate similarity: It will be recalled that similarity between the communicator (instructor) and the recipient (inmate) was thought to be positively related to the effectiveness of the communication, and it was predicted that the greater the dissimilarity between the instructor and the inmates, the less likely were the inmates to participate in the project. With the inmate education uniformly assumed to be grade seven, this in effect resulted in hypothesizing a negative relationship between the instructor's education and inmate co-operation. This hypothesis was confirmed for Institution B, but not for Institution A where a significant positive relationship was found, that is, the higher the instructors' education the more inmate co-operation.

A possible explanation of the divergent results within the two institutions was suggested by the relative discrepancy between staff and inmate education at the two

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institutions. At both the average number of years of formal education was higher for the instructors than for the inmates, but in Institution A the instructors' average (8.9 years) was more than a year lower than the corresponding average in Institution B (10.3 years). The combination of the results for the two institutions suggests the hypothesis that inmate (co-operation) is a curvilinear, inverted U function of the instructor-inmate similarity in formal education. An explanation could be the inmate's perception of instructor attractiveness attributable to similarity in educational accomplishment. Within the range of one's potential accomplishment, increasing education may be perceived as something worthy of esteem, something that adds to the persuasiveness of the instructor. That is, the higher the instructor achievement, the higher the inmate respect and co-operation, as long as the accomplishment was "meaningful" in relation to the inmate's own educational achievement. Once the instructor's educational achievement was far enough removed from that of the inmate, and for the sake of argument, one could say that the difference between grade 8.9 and 10.3 years represents the difference between public school and beyond, where increasing educational achievement becomes a

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sign of increasing "strangeness" which results in decreasing degree of inmate co-operation. A similar explanation in terms of social distance, to account for differential teaching effectiveness, has been indicated by McCroskey (15, page 116).

The above hypothesis is put forward, of course, with the "everything else being equal" proviso. However, we know that this proviso did not hold; for example, the two institutions were not alike with respect to chronological age. (Because, at the onset of the study, the relationship between instructor and inmate age and inmate co-operation could not be clearly conceptualized in terms of the hypothesized communication framework, the interaction between education, age, and co-operation was not examined). An inspection of Table 5 reveals that in institution A the inmates and instructors were more similar to each other with respect to education and age than they were in Institution B. Shop placement resulted in increasing similarity in Institution A and decreasing similarity in Institution B. (Average instructor and inmate age rank order correlations were .662 and -.672, both significant at $p = .10$). The meaning and implications of the above values are not clear and it will be the task of further research to explore them. With

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respect to instructor-inmate education differences, the results confirm the advisability of separate sub-sample analyses, an approach advocated by correctional researchers.

(8) (9) Had the two samples been combined the correlation between inmate-instructor educational dissimilarity and inmate co-operation would have been zero.

b. The inter-rater reliability of the independent variables, "trade qualifications" and "skill-in-trade":

It was noted that the Spearman rank order coefficients were .022 and $-.373$ in Institution A and .594 and .645 in Institution B. While the low or nonexistent agreement of raters on worker qualifications are not uncommon in industry (4, page 509) the relative differences between the two institutions, on the reliability of these two attributes, confirms the impression the writer formed during his six visits to these Institutions. This impression was that at Institution B the physical layout, and the maximum security design of the Institution, relieved the supervisors from some of their worries about custody, and allowed them to focus more on the teaching qualities of the instructors rather than on their abilities to control inmates. This line of thought is bolstered by the inter-rater agreement on "leadership", defined as "the ability to

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TABLE 5

Instructor Education, Instructor and Inmate Ages and the
Correlation Between Ages: Institutions A and B.

Instructor Education in Years	Institution A	Institution B
N	15	11
Range	3.0	8.0
Mean	8.9	10.2
Instructor Age in Years		
N	15	11
Range	13.0	31.0
Mean	40.0	49.0
Inmate Age in Years		
N	146	130
Range	50.0	37.0
Mean	37.9	26.9
Rank Correlation Between Average Inmate and Instructor Age by Shops		
	.662*	-.678*
N = 9		
Significant at p= .10		

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get the job done with the least problem for the Institution", which was obtained at the same time as were the ratings for "skill-in-trade" and "trade qualifications". The reliability coefficients were .734 for Institution A and .848 for Institution B, indicating that at both Institutions the supervisors were aware of, and agreed on, their instructors' relative ability to effectively maintain control of the inmates in their shops. In addition, inter-rater agreement on "leadership" in Institution A may have been facilitated by the fact that the supervisors had known the instructors better "as leaders" than as instructors, since eight of the fifteen instructors had previously worked as guards in the same complex. (Only one of the eleven instructors in Institution B was recruited from the position of a guard.)

Thus, the variation in security consciousness between the two institutions is proposed as one hypothesis to account for the found differences in supervisors' agreement on instructor characteristics. This hypothesis is consistent with the differences between the two institutions, with respect to architectural design, and the previous employment of the instructors. Some exploration of the institutional climate could be one step to verify the

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differential "security mindedness" conjecture.

c. The relative importance of the independent variables: The procedure used to estimate the relative effectiveness of the independent variables to reduce criterion variance fell short of the ideal (see Appendix 11), but the results were thought to give a general idea about the relative weight of each predictor. By means of inspection and separate regression analyses of the P.O.I. and non-P.O.I. scores, the number of independent variables was reduced with only the index of instructor-inmate similarity, and the Fr and Sy scales of the P.O.I., that is those making significant contribution to prediction, remaining.

The index of instructor-inmate similarity, was the major predictor in both institutions. Note that the coefficient of "similarity" changes sign from one institution to the other. The repetition of this analysis, with a proper regression analysis of all the data, would increase the confidence in the obtained results.

d. Co-operation 1 and co-operation 2: Not unexpectedly the two criteria were correlated, the coefficients being .839 and .936 in Institutions A and B respectively. These correlations indicate that co-operation

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1 and co-operation 2 measure similar aspects of the criteria. When the correlations between the predicted values are compared with the observed values (see Table 6), it appears that co-operation 2 is the criterion more easily predicted.

TABLE 6

Relationship Between Co-operation 1 (Y_1) and Co-operation 2 (Y_2)

	<u>Institution A</u>	<u>Institution B</u>
<u>Correlation between co-operation 1 and co-operation 2</u>	.839	.936
Correlation between predicted and observed values*		
<u>Co-operation 1</u>	Y = .300	Y = .469
<u>Co-operation 2</u>	Z = .374	Z = .540

* Extracted from Table 9, in Appendix 11.

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e. Size of the shop and co-operation: Grygier (10, Page 38) noted the negative relationship between treatment potential of a given correctional unit, the number of inmates in the unit and especially the staff-inmate ratio of the unit. Recently Crosbie, Petroni and Stitt, (5) drew attention to group size as being one of the dynamic factors neglected in dealing with the results of corrective group therapy. In the present study six relevant rank order correlations between the number of inmates in each shop and the ratio of inmates to instructors in each shop and cooperation were calculated as shown in Table 7. They all had the

TABLE 7

Correlation of Co-operation 2, Across Shops, With Instructor-Inmate Ratio, and Number of Inmates in Each Shop

	<u>Inmate-Instructor Ratio and Co-operation 2</u>	<u>Number of Inmates in each shop and Co-operation 2</u>
Institution A, N = 9	-.400	-.246
Institution B, N = 9	-.290	-.750*
Both Institutions, N = 18	-.230	-.336

* p = .05

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predicted sign though only one of them (size of shop and co-operation 2, Institution B) reached the magnitude required for statistical significance. Nevertheless, it is clear that in thinking about the relationship between instructor characteristics and inmate co-operation, the effect of shop size has to be kept in mind by the researcher.

3. Weaknesses of the Research Design

Even though the results of the present study are positive in delimiting a potentially fruitful area for study, other researchers should be aware of some of the weaknesses in the present design which, in a sense, did not allow a fair test of the experimental hypothesis. Not wanting to disturb the continuity of the text or create the impression of wanting to minimize the merits of the study, only five such problems are noted here. These were selected for their representativeness of the questions raised but not answered by this research, and also because they were specially troubling from the point of view of the design as a whole. It is hoped that future studies may derive some benefit from these considerations.

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a. That certain communicator characteristics create the right kind of conditions for attitude change in the recipient, a major assumption of the study, is predicated on these characteristics being perceived by the recipient. There was no attempt made to assess the validity of this condition which theoretically mediated the instructor characteristics - inmate co-operation relationship. Possibly by interviewing representative inmates from the various shops, one could obtain at least some qualitative information about the inmate perception of staff characteristics.

b. It has been assumed in this study that there was no significant variance in inmates' suspiciousness among the shops. One could support this assumption either by random allocation of the inmates into various shops or by obtaining a measure of suspiciousness when the inmate is assigned to the shop so that differential initial suspiciousness could be eliminated as a source of variance in inmate co-operation. The analysis of available and recent MMPI records, one could start with the Pa scale, might be an exploratory first step in this direction.

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c. The simple design of this study did not take into account a number of possible confounding effects specified by the general paradigm from which the instructor characteristics - inmate co-operation hypothesis was derived.(16)

An inspection of Table 8 reveals that of the two phases of persuasion - counselling, the assessment of only one, communicator characteristics, was attempted. There was only a very modest attempt made to measure audience characteristics and none to assess the manner and degree of the audience's dealing with dissonant information.

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TABLE 8

Opinion Change Model¹

1. Suspiciousness exists
2. Opinion change objective: Reduction of Suspiciousness
3. Opinion change is a function of:
 - Phase I A: Relevant communicator characteristics
 - Phase II B: Specific performance to bring about
change, what he does, and
how he does it
 - Phase I C: Relevant recipient characteristics
 - Phase II D: What they do to reduce dissonance

1 - Modification of Strong's model. (16)

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It remains for further studies, possibly with the help of participant observers in the shops, to assess both the instructors' performance as opinion changing agents, as well as the inmate's manner of dealing with dissonant information.

d. The multiple regression analysis model, used for the statistical treatment of the data, suggested that the co-operation in each shop was the function of the same linear combination of instructor characteristics obtained by ratings, P.O.I. scores, and Instructor-Inmate similarity. There were three major sources of variation for the co-operation scores; that between shops, which was postulated to be explained by the differences between the instructors; that between shops due to the differences between the groups of inmates in the various shops (e.g., cohesiveness) and, finally; that within the shops due to the differences between the inmates themselves. No attempt was made to take the latter two effects into account by the model.

e. The assumption that the P.O.I. was an indicator of perceived instructor characteristics was based on a single study.(7) Consequently, when a single known replication of that study yielded negative results (18), a question arises

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about just what the P.O.I. was measuring. This question acquires additional weight when one looks at some of the inter-correlations that were obtained among the variables in this study. For example, the Sy scale of the P.O.I. has made a statistically significant contribution to the prediction of inmate co-operation in both institutions. (See Table 4) However, one should be cautious about the stability of the Sy score since it is based on only nine items.

Replication of this study, with the addition of tools specifically designed to assess facilitative counselor characteristics, may help to clarify the obtained correlations between instructor P.O.I. scores and inmate co-operation (1, Appendix 3) (3, Appendix 2).

4. Suggestions for further Research

a. A follow up study of inmate post-release behaviour and its relationship to instructor characteristics is one project that comes readily to mind. The practical implications of a finding, say, that inmate prosocial behaviour was related to instructor characteristics which can be taught (2, page 22). Thus, these factors could be considered both in the hiring and training of instructors.

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b. Unconditional positive regard, a condition of counselling effectiveness found to be the most important counsellor characteristic second to genuineness (2, page 20) was not assessed by the P.O.I. The measurement of this condition may increase the explained variance in inmate co-operation.

c. As mentioned earlier, the inter-rater agreement by the supervisors on the instructor characteristic of "leadership" was high. It was also found by Grygier that the instructor's leadership rating was one of the best predictors of inmate co-operation (11). It would seem worthwhile to enquire about the meaning attributed to this term by the supervisors and explore the dimensions of "leadership". (For example, it seems that the communication facilitating characteristics found to be significantly related to the criterion in the present study have been associated with person oriented and democratic leadership in groupe (6). Such an analysis might suggest additional parameters to the instructor characteristic - inmate co-operation hypotheses.

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In a sense, the number of inmate and instructor characteristics which may have an effect on the criterion variance, is considerable. Continuity with other research in the field could provide guidelines for selecting from these characteristics. For example, in a recent study of penitentiary training shops, Kulik found that an inmate's subsequent behaviour in a shop was related to his choice of shop (14). Exploring the relationship between inmate shop preference, inmate shop placement and their subsequent co-operation in performing a task, like the one given in the present study, might increase the "explained" variance in co-operation. And, as a second example, such well known instruments in criminological research as Grygier's L.I.T. and Gough's C.P.I. are potentially fruitful sources for additional relevant variables.

d. Unexplored in the study has been the question of overt compliance and private acceptance on the inmate's part (13; 12, p. 40). Had a given inmate complied with a reasonable request because it was from another human being or was it for some expected tangible and foreseeable reward like improved chances for parole? Was it due to the special relationship developed between him and the instructor, and

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restricted in its effect, to the shop? Had this relationship resulted in the inmate's internalizing some of the instructor's values, thus extending the importance of the relationship both in space and time? How important was the perceived group pressures of fellow inmates, either to comply or not to comply, with the instructor's request? Individual interviews with inmates shortly after the experimental situation, and follow up studies after release, might add to our understanding of the nature and effect of prisonization experiences.

e. In order to make the findings more general, it would seem worthwhile to repeat the study with a different task. In spite of verbal assurances of anonymity and intimated benefits to themselves, the sociometric task did require the inmates to name other inmates, an activity thought to be going strongly against the inmate code of suspicion. What would be the response, for example, to the instructors requesting inmates to volunteer for a medical experiment? Interestingly, in spite of the relative neutrality of the task, inmate co-operation in terms of returning simple questionnaires, asking about their motivation for having participated or not participating in such a

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medical experiment was 30% (17). It might be, that it is the task of putting something down on paper in writing, rather than the specific topic or the task itself, which reduces inmate co-operation.

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SUMMARY AND CONCLUSIONS

Descriptive and impressionistic studies of institutions suggest that while inmate culture militates against rehabilitative efforts, certain staff members, such as teachers and shop instructors, may exert a positive influence on inmates.

Studies in the area of interpersonal communication and attitude change indicate that perceived qualities of expertness, genuineness and **similarity** facilitate attitude change.

Co-operation given to an outsider, at the request of the instructor, was seen as an act contrary to the inmate code, and thought to be associated with certain characteristics of the instructor.

It was hypothesized that there was a linear positive relationship between the instructor's characteristics of expertness, genuineness, and similarity to the inmate, and inmate co-operation. This hypothesis was tested by correlating two measures of expertness, obtained by supervisor ratings, ten measures of genuineness, yielded by ten selected scales of the P.O.I., and one measure of similarity, based on instructor-inmate differences in formal education, with two measures of inmate co-operation,

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based on inmate voluntary participation in a sociometric research project conducted by an outside investigator.

Of the fifty-two separate experimental hypotheses (13 independent variables, two criteria, two institutions) thirty were confirmed with instructor-inmate similarity being the best predictor of these thirty, followed by the selected scales of the P.O.I. The results were thought to be promising for their practical and theoretical implications.

Some of these implications were explored. It was suggested that:

1. There seems to be an optimal level in instructor-inmate difference in formal education.
2. The general institutional orientation has influenced supervisor ratings of instructor expertness.
3. The consequent unreliability of these ratings may have contributed to the failure of expertness to account for criterion variance in Institution A.
4. Generally, in terms of criterion variance accounted for by the predictors, co-operation 2 was a better criterion measure than co-operation 1.
5. There is an inverse relationship between instructor-inmate ratio and inmate co-operation.

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Suggestions for further research fell into two broad categories. The first focussed on suggesting improvement in the present research design by empirical evaluation of some of the implicit assumptions, and a fuller and more appropriate use of the opinion change and linear regression models. In the second category the need for additional information was emphasized. It was suggested that:

1. The addition of selected independent variables would increase predictive accuracy.
2. Generality of the findings could be extended to post-institutional pro-social behaviour and new tasks by a follow up study of the present sample and substitution of different voluntary assignments.
3. A refinement of the measure of inmate co-operation could be made by conceptualizing it as a composite of public co-operation and private acceptance.

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APPENDICES

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APPENDIX 1

Description of the Shops and the Inmates Employed in them as of December 5, 1970 - Institution A:

Institution A employs a supervisor of training and a supervisor of industries who oversee the following shops:

1. The Industrial Shelving Shop - that produces all types of steel shelving. Under two instructors it employed twenty-nine inmates, each of whom had expressed his willingness to participate, and whose ages ranged from twenty-five to fifty-one years of age with a median age of 35 years, a mean age of 36.3 years and a standard deviation of 9.2 years. An unexpected shipment of steel at the time of the test allowed only fourteen of the twenty-nine inmates employed in this shop to be available. The unloading of the shipment of steel could not be delayed because of demurrage charges levied at an hourly rate. Because of the anonymity guaranteed the inmates it was not possible to identify the fourteen inmates who participated in the study.¹

2. The Body Shop - that did auto body repairs. Under two instructors it employed twenty inmates whose ages ranged from twenty-two to fifty-five years of age with a median age of

¹For descriptive purposes, data based on the whole shop of twenty-nine inmates are used. For other purposes, the fourteen inmates who actually participated were used.

APPENDIX 1

30 years, a modal age of 31 years, a mean age of 32.8 years and a standard deviation of 9.2 years.

3. The Industrial Paint Shop - that did the preparation and finishing of all types of painted surfaces using commercial techniques. Under one instructor it employed eight inmates whose ages ranged from thirty-one to forty-four years of age with a median age of 38 years, a mean age of 37.4 years and a standard deviation of 4.3 years. On the day previous two new inmates had been assigned to this shop but had not arrived. On the same day another inmate employed in this shop had been placed in segregation for an offence committed previously outside the shop.²

4. The Industrial Metal Shop - that produced all kinds of light metal items. Under two instructors it employed twenty-nine inmates whose ages ranged from twenty-four to seventy-two years of age with a median age of 38 years, a modal age of 40 years, a mean age of 40.0 years, and a standard deviation of 12.2 years.

²For descriptive purposes the data from this shop includes these three inmates. For other purposes only the five inmates who actually participated were used.

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5. The Industrial Garage - that did mechanical repairs to all types of automobiles. Under two instructors it employed eleven inmates whose ages ranged from thirty to fifty-seven years of age with a median age of 39 years, a mean age of 42.4 years, and a standard deviation of 9.9 years.

6. The Painter's Shop - that did conventional inside and outside building and house painting. Under one instructor it employed nine inmates whose ages ranged from thirty-seven to forty-eight years of age with a median age of 38 years, a mean age of 36.3 years, and a standard deviation of 7.4 years.

7. The Industrial Gym Shop - that manufactured metal and wood specialty gymnasium equipment. Under two instructors it employed sixteen inmates whose ages ranged from twenty-five to sixty-three years of age with a median age of 35.5 years, a mean age of 39.0 years, and a standard deviation of 12.5 years.

8. The Industrial Tailor Shop - that manufactures all kinds of clothing and canvas items. Under two instructors it employed twenty-five inmates whose ages ranged from twenty-four to fifty-six years of age with a median age of 34 years, a modal age of 46 years, a mean age of 36.5 years, and a standard deviation of 8.9 years.

APPENDIX 1

9. The Industrial Furniture Repair Shop - that manufactured and repaired all kinds of furniture. Under one instructor it employed seventeen inmates whose ages ranged from twenty-four to sixty-one years of age with a median age of 42 years, a mean age of 44.1 years, and a standard deviation of 1.3 years.

APPENDIX 1

SUMMARY OF DESCRIPTIVE DATA

INSTITUTION A

Shops	Supervisors	Instructors	Inmates	Age Range Yr.	Median	Mode	Mean	S.D.
1. INDUSTRIAL SHELVING	2	2	14 ^a	26	35	--	36.6	9.2
2. BODY SHOP	2	2	20	33	30	31	22.8	9.2
3. INDUSTRIAL PAINT SHOP	1	1	5 ^b	13	38	--	37.4	4.3
4. INDUSTRIAL METAL SHOP	2	2	29	48	38	40	40.0	12.2
5. INDUSTRIAL GARAGE	2	2	11	27	39	--	42.4	9.9
6. PAINTERS SHOP	1	1	9	21	38	--	36.3	7.4
7. INDUSTRIAL GYM SHOP	2	2	16	38	35.5	--	30.0	12.5
8. INDUSTRIAL TAILOR SHOP	1	1	17	37	42	--	44.1	11.3
9. INDUSTRIAL FURNITURE REPAIR	1	1	17	37	42	--	44.1	11.3
ALL SHOPS	215	215	146	50	37	38	37.9	10.4

a. Descriptive data based on 29 inmates although only 14 participated.

b. Descriptive data based on 8 inmates although only 5 participated.

APPENDIX 2

Disposition of all Inmates as of
December 5, 1970 - Institution A

<u>Not in Shops</u>	<u>Number of Inmates</u>
Cleaners	4
Reception	10
Accommodation Building	33
Ornamental Grounds	1
Central Corridor	1
Hospital	5
School/Library/Recreation	14
Chaplains	4
Vocational Training	17
Headquarters	9
Main Kitchen and Officers' Mess	31
Institutional Services	9
Utilities	20
Maintenance	24
Stores	5
Farms	32
	—
Not in Shops	219
In Shops	164
	—
All Inmates	383

APPENDIX 3

Description of the Shops and the Inmates Employed in Them as of January 8, 1971 - Institution B

Institution B employs a supervisor of training and a supervisor of industries who oversee the following shops:

1. The Vocational Metal Workshop - that provided the inmates with the opportunity to learn the sheet metal trade, or to acquire some of its skills. Under one instructor it employed nine inmates whose ages ranged from eighteen to fifty-one years of age with a median age of 27 years, a modal age of 27 years, a mean age of 28.5 years, and standard deviation of 10.0 years.
2. The Vocational Barber Shops - that provided the inmates with the opportunity to learn the barbering trade, or acquire some of its skills. Under one instructor it employed eleven inmates whose ages ranged from twenty to fifty-two years of age with a median age of 25 years, a modal age of 23 years, a mean age of 28.6 years, and a standard deviation of 9.3 years.
3. The Vocational Plumbers Shop - that provided the inmates with the opportunity to learn the plumbing trade, or acquire some of its skills. Under one instructor it employed

APPENDIX 3

twelve inmates whose ages ranged from twenty to fifty-two years of age with a median age of 22 years, and a standard deviation of 3.4 years.

4. The Vocational Office Machine Repair Shop - that provided the inmates with the opportunity to acquire the knowledge and skills necessary to repair and service most types of common office machines. Under one instructor it employed ten inmates whose ages ranged from twenty-one to forty-three years of age with a median age of 22.5 years, a mean age of 24.5 years and a standard deviation of 3.0 years.

5. The Concrete Products Shop - that manufactured such items, made of cement, as bricks, blocks, pipe and other preformed items. Under one instructor it employed eight inmates whose ages ranged from twenty-one to thirty years of age with a median age of 24.5 years, a modal age of 27 years, a mean age of 24.9 years, and a standard deviation of 3.0 years.

6. The Industrial Painters Shop - that did all types of finishing and painting using industrial techniques. Under one instructor it employed twelve inmates whose ages ranged from twenty to thirty-seven years of age with a median age of 24.5 years, a mean age of 25.6 years, and a standard

APPENDIX 3

deviation of 5.3 years.

7. The Industrial Sheet Metal Shop - that produced sheet metal items. Under one instructor it employed fifteen inmates whose ages ranged from nineteen to forty-one years of age with a median age of 25.0 years, a mean age of 27.1 years, and a standard deviation of 7.0 years.

8. The Industrial Carpenter Shop - that manufactured all types of woodwork, from furniture frames for upholstering, to pre-fabricated small buildings. Under two instructors it employed thirty-two inmates whose ages ranged from nineteen to fifty-one years of age with a median age of 25.5 years, a modal age of 21.0 years, a mean age of 28.3 years, and a standard deviation of 7.0 years.

APPENDIX 3

9. The Full Time School¹ - which provided the inmates with the opportunity to advance their education at their own rate. It taught all grades up to Ontario Grade twelve. Under two instructors it employed twenty-one inmates as full time students whose ages ranged from eighteen to forty-six years of age with a median age of 25.0 years, a modal age of 20.0 years, a mean age of 27.5 years, and a standard deviation of 7.9 years.

¹ The teacher and the shop instructor are seen as that group of staff with whom the inmates may associate without infringing upon the so-called "inmate code" that an inmate does "not talk to a screw". As it is the influence of the individual in charge upon his charges that is the principal interest of this study, the Full Time School is included.

APPENDIX 3

SUMMARY OF DESCRIPTIVE DATA

Institution B

Shops	Supervisors	Instructors	Inmates	Age Range Yrs	Median	Mode	Mean	S.D.
1. VOCATIONAL METAL WORKERS SHOP		1	9	33	27.0	27.0	28.5	10.0
2. VOCATIONAL BARBERS SHOP		1	11	32	25.0	23.0	28.6	9.3
3. VOCATIONAL PLUMBERS SHOP		1	12	11	22.0	22.0	23.1	3.4
4. VOCATIONAL OFFICE MACHINE REPAIR SHOP		1	10	22	22.5	--	24.5	6.7
5. CONCRETE PRODUCTS SHOP		1	8	12	24.5	27.0	24.9	3.0
6. INDUSTRIAL PAINT SHOP		1	12	17	24.5	--	25.6	7.3
7. INDUSTRIAL SHEET METAL SHOP		1	15	22	25.0	--	27.1	7.0
8. INDUSTRIAL CARPENTERS SHOP		2	32	32	25.5	21.0	28.3	8.2
9. SCHOOL FULL TIME		2	21	30	25.0	20.0	27.5	7.9
ALL SHOPS	2	11	130	37	25.0	21.0	26.9	7.4

APPENDIX 4

Disposition of all Inmates as of
January 8, 1971 - Institution B

<u>Not in Shops</u>	<u>Number of inmates</u>
Kitchen	40
Cleaners	40
Laundry	32
Change Rooms	10
Plumbers	8
Electricians	7
Works	33
Library	3
School Office	1
Hobby Craft	2
Day Parole	5
Vocational Training	33
Training Office	3
Classifications	10
Shop Accounts	4
Industries Office	<u>1</u>
NOT IN SHOPS	232
IN SHOPS	<u>130</u>
ALL INMATES	362

APPENDIX 5

Procedure followed for structured interview with Supervisors at Institutions A and B

The supervisors were asked the following series of questions:

1. Please consider this list of instructors and their shops in your institution.
2. Are you familiar with them?
3. Which of these instructors do you consider to have the best (trade qualifications)? Give him a score of five points.
4. Which (number) of the remaining instructors do you consider to have the next best (trade qualifications)? Give them a score of four points each.
5. Which of the remaining instructors do you consider to have the least (trade qualifications)? Give him a score of one point.
6. Which (number) of the remaining instructors do you consider to have the next best (trade qualifications)? Give them a score of two points each.
7. You now have (number) of instructors left. Do you agree that they do not belong to the first two scores, or the last two scores? If so, give them a score of three points each.

APPENDIX 5

As each score was given it was entered by the interviewer in a space opposite the instructor's name on the list of instructors and shops. When required, a reconciliation, following the first part of question seven, was made before entering the last mean ratings.

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
1	I am bound by the principle of fairness.	-		-		-					-
2	When a friend does me a favour, I feel that I must return it.	-		-							-
3	I feel I must always tell the truth.	-		-				-			
4	If I manage the situation right, I can avoid being hurt.	+			+						
5	I feel that I must strive for perfection in everything that I undertake.	-		-				-			
6	I seldom make my decisions spontaneously.	+	+			+					

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		Inner Support Item	SAV Self-Actual- izing Values	EX Existential- ity	FR Feeling Reactivity	S Spontaneity	SR Self-Regard	SA Self- Acceptance	SY Synergy	A Acceptance of Aggression	C Capacity for Inmate Contact
7	I am afraid to be myself.	-					-				
8	I feel obligated when a stranger does me a favour.	-		-							-
9	I feel that I have a right to expect others to do what I want of them.	-		-							
10	I live by values which are in agreement with others.	-	-		-						
11	I am concerned with self-improvement at all times.	-		-							
12	I feel guilty when I am selfish.	-						-			
13	Anger is something I try to avoid.	+			+					+	

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actual- izing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
14	For me, anything is possible if I believe in myself.	-						-			
15	I put others' interests before my own.	-			-						
16	I sometimes feel embarrassed by compliments.	-			+		-				
17	I believe it is important to understand why others are as they are.	+									
18	I don't put off until tomorrow what I ought to do today.	+		+							
19	I have a right to expect the other person to appreciate what I give.	+		+							+

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actual- izing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
20	My moral values are dictated by society.	-	-								
21	I do what others expect of me.	-		-							-
22	I don't accept my weaknesses	+						+			
23	In order to grow emotionally, it is necessary to know why I act as I do.	-									
24	I am hardly ever cross.	+						+		+	
25	It is necessary that others approve of what I do.	-									-
26	I am afraid of making mistakes.	-						-			

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
27	I do not trust the decisions I make spontaneously.	+	+			+					
28	My feelings of self-worth depend on how much I accomplish.	-						-			
29	I fear Failure.	-						-			
30	My moral values are determined, for the most part by the thoughts, feelings, and decisions of others.	-									
31	It is not possible to live life in terms of what I want to do.	+		+			+				
32	I cannot cope with the ups and downs of life.	+					+				

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- lity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
33	I do not believe in saying what I feel in dealing with others.	+			+					+	+
34	Children should realize that they do not have the same rights and privileges as adults.	-									
35	I avoid "sticking my neck out" in my relations with others.	+				+					
36	I believe the pursuit of self-interest is opposed to interest in others.	-	-	-					-		-
37	I have not rejected any of moral values I was taught.	+						+			

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
38	I do not live in terms of my wants, likes, dislikes and values.	+	+		+		+				
39	I do not trust my ability to size up a situation.	+					+				
40	I do not believe I have an innate capacity to cope with life.	+					+				
41	I must justify my actions in the pursuit of my own interests.	-				-		-			
42	I am bothered by fears of being inadequate.	-						-			
43	I believe that man is essentially evil and cannot be trusted.	+	+								

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
44	I live by the rules and standards of society.	-		-							-
45	I am bound by my duties and obligations to others.	-		-							-
46	Reasons are needed to justify my feelings.	-									
47	I find it difficult to express my feelings by just being silent.	+			+						
48	I do not feel it necessary to defend my past actions.						-	-			
49	I like everyone I know.	-									-

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		InnerSupport Item	Self-Actual- izing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
50	Criticism threatens my self-esteem.	-						-		-	
51	I believe that knowledge of what is right makes people act right.	-									
52	I am afraid to be angry at those I love.	-			-	-				-	-
53	My basic responsibility is to be aware of other's needs.	+			+						+
54	Impressing others is most important.	-		-		-					-
55	To feel right, I need always to please others.	-			-						-

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actual- izing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
56	I will not risk a friendship just to say or do what is right.	+		+						+	
57	I feel bound to keep the promises I made.	-		-							-
58	I must avoid sorrow at all costs.	-			-						
59	I do not feel it necessary always to predict what will happen in the future.										
60	It is important that others accept my point of view.	-					-				-
61	I only feel free to express warm feelings to my friends.	-			-					-	-

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actual- izing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
62	There are very few times when it is more important to express feelings than to carefully evaluate the situation.	+			+	+					
63	I do not welcome criticism as an opportunity for growth.	+						+		+	
64	Appearances are all-important.	-		-							
65	I hardly ever gossip.	-						-			
66	I do not feel free to reveal my weaknesses among friends.	+						+			
67	I should always assume responsibility for other people's feelings.	-		-							-

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		Inner Support Item I	SAV Self-Actual- izing Values	EX Existential- ity	FR Feeling Reactivity	S Spontaneity	SR Self-Regard	SA Self- Acceptance	SY Synergy	A Acceptance of Aggression	C Capacity for Intimate Contact
68	I do not feel free to be myself and bear the consequences.	+	+			+	+				
69	I already know all I need to know about my feelings.	-			-						
70	I hesitate to show my weaknesses among strangers.	-						-		-	-
71	I will continue to grow only by setting my sights on a high-level, socially approved goal.	-						-			
72	I cannot accept inconsistencies within myself.	+						+			
73	Man is naturally antagonistic.	+								-	

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
74	I hardly ever laugh at a dirty joke.	-		-		-					
75	Happiness is an end in human relationships	-									
76	I only feel free to show friendly feelings to strangers.	-			-					-	-
77	I try to be sincere and I am sincere.	+						+			
78	Self-interest is unnatural.	+					+				
79	A neutral party can measure a happy relationship by observation.	-								-	
80	For me, work and play are opposites.	+	+	+					+		

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- lity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
81	Two people will get along if each concentrates on pleasing the other	-				-					-
82	I do not have feelings of resentment about things that are past.										
83	I like only masculine men and feminine women.	-									
84	I actively attempt to avoid embarrassment whenever I can.	-				-				-	
85	I blame my parents for a lot of my troubles.	-				-					

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
86	I feel that a person should be silly only at the right time and place.	-		-		-					
87	People need not always repent their wrongdoings.							-			
88	I do not worry about the future.										
89	Kindness and ruthlessness must be opposites.	-	-	-					-	-	
90	I prefer to use good things now.										
91	People should always control their anger.	-			-					-	
92	The truly spiritual man is never sensual.	+	+	+					+		

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C	
		Inner Support Item	Self-Actuali- zing Values	Existential- lity	Feeling Reactivity	Spontaneity	Self-Regard	Self Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact	
93	I am unable to express my feelings if they are likely to result in undesirable consequences.	+			+					+		
94	I am often ashamed of some of the emotions that I feel bubbling up within me.	-			-							
95	I have never had mysterious or ecstatic experiences.	+			+							
96	I am orthodoxly religious.	-		-								
97	I am completely free of guilt	-										
98	I have a problem in fusing sex and love	-	-	-					-			

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
106	I am loved because I give love.	-									-
107	When I really love myself, everybody will love me.	-						-			-
108	I can let other people control me if I am sure they will not continue to control me.	+									+
109	As they are, people do not annoy me.	+								+	
110	Only when living for the future ties into living for the present does my life have meaning.										

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actual- izing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
116	A person can completely change his essential nature.	-									
117	I am afraid to be tender.	-			-						-
118	I am not as-assertive and affirming.	+	+				+			+	
119	Women should not be trusting and yielding.	+									
120	I do not see myself as other see me.	+									
121	A person who thinks about his greatest potential gets conceited.	+	+				+				
122	Men should not be assertive and affirming.	+									+

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reac- tivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Con- tact
123	I am not able to risk being myself.	+	+			+				+	
124	I do not feel the need to be doing something significant all of the time.			-							
125	I do not suffer from memories.										
126	Men and women must not be both yielding and assertive.	+									
127	I do not like to participate actively in intense discussions.	+									+
128	I am not self-sufficient.	+	+				+	-			

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
129	I do not like to withdraw from others for extended periods of time.										
130	I always play fair.	-		-						-	
131	I never feel so angry that I want to destroy or hurt others.	+			+					+	
132	I feel uncertain and insecure in my relationships with others.	+					+				
133	I like to withdraw temporarily from others.		+								
134	I cannot accept my mistakes	+						+			
135	I never find any people who are stupid and uninteresting.	+	+							+	

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		Inner Support I item	Self-Actualizing Values SAV	EX Existentiality	FR Feeling Reactivity	S Spontaneity	SR Self-Regard	SA Self-Acceptance	SY Synergy	A Acceptance of Aggression	C Capacity for Intimate Contact
136	I do not regret my past.										
137	Just being myself is not helpful to others.	+				+			+		
138	I have not had moments of intense happiness when I felt like I was experiencing a kind of bliss.	+	+			+					
139	People have an instinct for evil.	-									
140	For me, the future usually seems hopeful.										
141	People are not both good and evil.	+	+						+		

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

142	My past is a stepping stone for the future.	I	Inner Support Item	SAV	Self-Actualizing Values	EX	Existentiality	FR	Feeling Reactivity	S	Spontaneity	SR	Self-Regard	SA	Self-Acceptance	SY	Synergy	A	Acceptance of Aggression	C	Capacity for Intimate Contact
143	"Killing time" is not a problem for me.						-														
144	For me, past, present and future is in meaningful continuity.																+				
145	My hope for the future does not depend on having friends.																				
146	I cannot like people unless I also approve of them.																+		+		
147	People are not basically good.																				
148	Honesty is always the best policy.																				

EXPERIMENTAL DESIGN

APPENDIX 6

Keyed Item Analysis by Scales - P.O.I.

		I	SAV	EX	FR	S	SR	SA	SY	A	C
		Inner Support Item	Self-Actuali- zing Values	Existential- ity	Feeling Reactivity	Spontaneity	Self-Regard	Self- Acceptance	Synergy	Acceptance of Aggression	Capacity for Intimate Contact
149	I feel uncom- fortable with anything less than a perfect performance.	+		+			+				
150	I can overcome any obstacles as long as I believe in myself.	-						-			

APPENDIX 7

Raw Scores - P.O.I. Scales

INSTITUTION A

P.O.I. Scale:

SHOP	INSTR.No.	I	Ck	SAV	EX	Fr	S	Sr	Sa	Sy	A	C
Body Shop	1	88	150	22	19	21	13	10	19	5	21	19
	2	88	150	20	25	15	15	13	14	9	19	19
Industrial Paint	3	82	150	15	20	16	15	13	18	6	19	22
Industrial Metal	4	65	150	16	9	11	10	12	9	5	11	15
	5	82	150	23	21	16	15	9	13	8	17	17
Industrial Garage	6	76	150	21	13	12	11	14	18	7	11	12
	7	73	150	16	12	11	12	10	17	7	15	19
Painters Shop	8	103	149	23	26	20	16	15	23	7	22	22
Industrial Gym	9	83	147	22	19	16	4	15	14	7	17	18
	10	80	143	12	21	13	9	11	21	5	14	21

APPENDIX 7

Raw Scores - P.O.I. Scales Cont'd

INSTITUTION A Cont.

SHOP	INSTR.No.	I	Ck	SAV	EX	Fr	S	Sr	Sa	Sy	A	C
Industrial Tailor	11	58	149	16	12	10	7	6	13	4	13	7
	12	63	145	13	14	10	7	12	11	5	14	14
Furniture Repair	13	68	150	19	12	13	6	12	12	7	15	13
Industrial Shelving	14	81	149	19	17	15	14	12	18	7	19	20
	15	71	149	22	13	13	13	13	10	8	14	17

APPENDIX 1

Raw Scores - P.O.I. Scales

INSTITUTION B

P.O.I. Scale:

SHOP	INSTR.No.	I	Ck	SAV	EX	Fr	S	Sr	Sa	Sy	A	C
Voc.Metal Workers	1	78	150	18	17	15	10	11	14	7	20	14
Voc. Barbers	2	74	150	19	14	17	11	12	14	7	18	18
Concrete Products	3	68	150	20	16	11	11	12	11	9	16	15
School Full Time	4	89	150	20	22	15	12	14	18	8	19	23
	5	71	150	13	23	13	5	7	14	5	10	17
Voc. Plumbers	6	84	150	21	20	17	12	13	17	5	18	17
Ind. Painters	7	81	150	18	20	11	15	9	21	4	14	19
Ind. Sheet Metal	8	82	150	19	18	13	12	12	18	6	15	15
Voc. Office Mach. Rep.	9	82	147	22	17	14	11	15	14	8	15	17
Ind. Carpenter	10	85	150	21	20	18	13	14	13	7	18	20
	11	83	150	21	17	13	14	12	18	8	15	20

EXPERIMENTAL DESIGN

APPENDIX 8

Summary of expertness dimensions of trade qualification and skill-in-trade data obtained through structured interview with supervisors

	Instructor	Trade Qualification			Skill-in-Trade		
		Supervisor		Average	Supervisor		Average
		1	2		1	2	
Institution A							
	1	2	4	3.0	2	3	2.5
	2	3	4	3.5	3	3	3.0
	3	3	1	2.0	4	3	3.5
	4	2	4	3.0	2	5	3.5
	5	3	2	2.5	3	2	2.5
	6	1	4	2.5	1	3	2.0
	7	2	5	3.5	4	4	4.0
	8	4	2	3.0	3	4	3.5
	9	4	3	3.5	3	4	3.5
	10	5	2	3.5	5	2	3.5
	11	3	3	3.0	2	2	2.0
	12	2	3	2.5	4	1	2.5
	13	4	3	3.5	3	2	2.5
	14	4	3	3.5	4	4	4.0
	15	3	2	2.5	2	3	2.5
Institution B							
	1	5	4	4.5	5	5	5.0
	2	4	4	4.0	4	4	4.0
	3	2	2	2.0	3	3	3.0
	4	3	3	3.0	1	2	1.5
	5	3	5	4.0	2	3	2.5
	6	3	3	3.0	3	3	3.0
	7	2	2	2.0	2	1	1.5
	8	1	3	2.0	3	3	3.0
	9	3	3	3.0	3	4	3.5
	10	4	3	3.5	3	3	3.0
	11	3	1	2.0	4	2	3.0

APPENDIX 9

DATA CONCERNING INSTRUCTOR EDUCATION

<u>Shop</u>	<u>Instructor</u>	<u>Recorded</u>	<u>Claimed</u>
<u>Institution A</u>	No.	last grade completed	last grade completed
Body	1	9	9
"	2	10	12
Ind. Paint	3	8 -	10
Ind. Metal	4	8	14
"	5	9	9
Ind. Garage	6	8	8
"	7	11	12
Painters	8	8	13
Ind. Gym	9	8	12
"	10	10	10
Ind. Tailor	11	10	11
"	12	8	10
Furniture Repair	13	10	10
Ind. Shelving	14	8	10
"	15	9	11
	Mean 8.9	SD 1	r = .03
<u>Institution B</u>			
Voc. Metal	1	9	10
Voc. Barbers	2	10	10
Concrete Products	3	8	10
School full time	4	13	16
"	5	16	16
Voc. Plumbers	6	10	10
Ind. Painters	7	8	10
Ind. Sheet Metal	8	8	11
Voc. Off. Mach. Rep.	9	12	12
Ind. Carpenter	10	10	12
"	11	8	12
	Mean 10.3	SD 2.5	r = .829

EXPERIMENTAL DESIGN

APPENDIX 10

Co-operation Scores and Indices by Shops - Institutions A and B

Workshop	Co-operation 1 Index				Co-operation 2 Index*				
	Number of Inmates in Shop - N.	Maximum possible Score (N x 24)	B Actual Scores	B/A Index	C Score 4	D Score 3	E Score 2	F Score 1	Index = $\frac{C.+D.+E.+F.+G}{N}$
Institution A									
Body Shop	20	430	270	.562	7	9	3	1	3.1
Ind. Paint Shop	5	120	42	.350	0	4	0	1	2.6
Ind. Metal Shop	29	696	121	.174	0	7	5	17	1.6
Ind. Garage	11	264	58	.220	1	4	3	3	2.3
Painters Shop	9	216	27	.125	0	2	2	5	1.7
Ind. Gym Shop	16	384	115	.299	1	8	2	5	2.3
Ind. Tailor Shop	25	600	137	.228	3	5	1	16	1.8
Furniture Repair Shop	17	408	63	.154	0	6	9	2	2.2
Ind. Shelving Shop	14	336	81	.241	2	3	7	2	2.4
Institution B									
Voc. Metal Workers Shop	9	216	131	.606	2	5	1	1	2.3
Voc. Barbers Shop	11	264	63	.238	1	3	1	6	1.9
Concrete Products Shop	8	192	139	.643	4	3	0	1	3.2
School Full Time	21	504	0	.000	0	0	0	21	1.0
Voc. Plumbers Shop	12	288	257	.892	7	5	0	0	3.5
Ind. Painters Shop	12	288	0	.000	0	0	0	12	1.0
Ind. Sheet Metal Shop	15	360	151	.419	4	4	2	5	2.4
Voc. Office Mach. Rep.	10	240	147	.612	3	5	0	2	2.9
Ind. Carpenter Shop	32	768	332	.432	12	5	4	11	2.5

* Since all inmates presented themselves for the test there were no zero scores.

APPENDIX 11

Multiple Linear Regression Analysis to Assess the Relative Importance of the Independent Variables.

The following describes the procedure and result of the multiple linear regression analysis made of the data. Because of the obvious limitations, the results can only be considered as suggestive.

1. By mistake five additional variables (leadership and four P.O.I. scales) which were not part of the study were included in the analysis.
2. The results were in b rather in beta coefficients.
3. Due to limited computer capacity complete analysis was not possible, four predictors being the maximum.
4. The fourteen P.O.I. scales were highly intercorrelated, as were the three non-P.O.I. variables. Different methods were used for reducing the number of P.O.I. and non-P.O.I. predictors.
 - a. P.O.I. - By inspection of the obtained intercorrelation matrix, two with the highest average intercorrelation with the other scales were selected by inspection (Fr and Sy).
 - b. Multiple regression analysis of non-P.O.I. variables showed that leadership and education contributed significantly to the prediction of the criterion. The above procedure was followed for each of the two criteria (co-operation 1 and co-operation 2).

APPENDIX 11

5. Predictors selected for Institution A were also used for Institution B. Thus one could say that Institution B was used as a validating sample.

6. When the four selected variables were used in a linear multiple regression equation to predict criteria co-operation 1 and co-operation 2 for each Institution, the results were as shown in Table 9.

7. Thus Fr and Education were the most reliable predictors. Note that the b coefficient for education changes sign (from positive to negative) from Institution A to Institution B.

8. Trade qualification and skill-in-trade were not included in the analysis because of their low reliability in Institution A. This was especially unfortunate because of their acceptable reliabilities in Institution B, and the significant correlation of skill-in-trade with both criteria.

APPENDIX 11

TABLE 9

Results of Multiple Linear Regression with Four Selected Variables
to Predict Co-operation 1 & Co-operation 2.

Equation Number	Inst.	Criterion	Prediction Equation That Includes Predictor Making Significant Contributions	Correlation between Predicted Observed Values
1	A	(Y) <u>Co-operation 1</u>	$= -15.72 - (1.05)X_3 - (0.61)^*X_{10} - (0.53)X_{15} - (1.58)^*X_{18}$	0.300
2	A	(Z) <u>Co-operation 2</u>	$= -1.476 - (0.005)X_3 - (0.022)^*X_{10} - (0.273)X_{15} - (0.194)^*X_{18}$	0.374
3	B	(Y) <u>Co-operation 1</u>	$= -9.09 - (1.11)X_3 - (2.13)^*X_{10} - (1.62)^*X_{15} - (1.89)^*X_{18}$	0.469
4	B	(Z) <u>Co-operation 2</u>	$= -0.304 - (0.164)X_3 - (0.277)^*X_{10} - (0.262)^*X_{15} - (0.255)^*X_{18}$	0.540

Where X_3 = Skill-in-Trade

X_{10} = Fr Scale of P.O.I.

X_{15} = Sy Scale of P.O.I.

X_{18} = Similarity

* P= .05

Apart from the regression coefficients the program also printed out the respective standard errors and the appropriate "t" value for each coefficient. The "t" values indicated that the Fr of the P.O.I. made a significant contribution to prediction in equations 1 and 2, and that the Fr and Sy scales of the P.O.I. and similarity made significant contributions in equations 3 and 4. The print-out containing the standard errors of the coefficients and the "t" values are, unfortunately, no longer available.

ABSTRACT

The hypothesis of a positive linear relationship between shop instructor characteristics of expertness, genuineness, and similarity to the inmate, and two measures of inmate cooperation was tested in the shops of two medium security institutions of the Federal Penitentiary Service.

Instructor characteristic of genuineness was measured by Shostrom's P.O.I.; their expertness by supervisory ratings, and instructor/inmate similarity by the difference in formal education.

The null hypothesis could not be rejected for thirty of the fifty-two separate hypotheses.

Instructor/inmate similarity accounted for the most variance in the criteria, though in one institution the sign of the coefficient was not in the predicted direction, and was followed by genuineness. Several suggestions for further research were made.