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Attitudes Toward High School and a Youth Center and Their Relations to Internal-External Control: The Feasibility of Subject Participation in the Formulation of Research Questions

Susan K. Green
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ATTITUDES TOWARD HIGH SCHOOL AND A YOUTH CENTER
AND THEIR RELATION TO INTERNAL-EXTERNAL CONTROL:
THE FEASIBILITY OF SUBJECT PARTICIPATION IN THE
FORMULATION OF RESEARCH QUESTIONS

by

Susan K. Green

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts
January, 1973
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The author expresses her gratitude to the two members of her advisory committee, Drs. Marilynn Brewer and Homer Johnson. Special thanks are due John Burns for his assistance in data analysis. The cooperation of the staff of Alternatives, Inc., is greatly appreciated, particularly the assistance offered by Linda Mitchell, Lance Sobel, and Clint Sanders. Ronnie Gilbert, Sam Wittlin, Maureen Sandler, Nancy Katz, Candy Kraft, Trude Fishbein, John Banks, Lance Greenberg, Julie Lundell, and Rachel Lavin, who served as subject-collaborators, are thanked for their time and efforts. The assistance of David Beacom, who edited this thesis, is also appreciated.
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INTRODUCTION

In recent years psychologists have become increasingly concerned with the ethical aspects of their research. Among other issues, the role that the subject has in psychological research has been examined and, as a result, psychologists have begun to face problems of exploitation and power often associated with the subject-experimenter relationship. The purpose of this study was to investigate the feasibility of a methodology designed to maximize the involvement of members of the subject population in most phases of research, thus minimizing the prospects of exploitation and subject powerlessness. The vehicle for testing this methodology was the investigation of theoretical issues involved with internal-external control (Rotter, 1966).

Methodology

One of the major ethical issues discussed in Kelman's (1971) incisive analysis of the psychological research setting is that of subject powerlessness. Much social research is conducted with subjects from a disadvantaged segment of society, who are easily accessible. These people usually have relatively little freedom to refuse to participate in experiments and few means to properly protect themselves from exploitation. Often an experimenter resorts to deception or other questionable tactics that can have harmful results for subjects, such as the lowering of self-esteem, the inducing of conflict, or the revealing of personal weakness. In the research setting, low status subjects are reluctant to question procedures or methods and may not have the knowledge to do so. Also, the research seldom accrues to these subjects' benefit because they do not determine questions or define research problems, and because they do not have the resources to
use research findings. In other words, most research subjects have little power, not only in relation to society but also in relation to the research situation.

As a corrective approach, Kelman offers the idea of participatory research in which the experimenter and his subjects form a partnership to determine questions and define problems for study. Such an approach not only counters the imbalance of power between subject and experimenter, it also improves subject motivation because each subject has a stake in the outcome and a unique contribution to make to the research. This methodology should also help refine research procedures. However, this practice involves extra time and effort, which will be justified only if it proves to be a workable method for conducting hypothesis-testing research. The aim of this study was to investigate the feasibility of subject involvement in the formulation of a questionnaire to assess attitudes toward various institutions as a function of internal-external control.

Theory

Internal-external control, as defined by Rotter (1966), is the degree to which an individual perceives that reward follows from his own attributes or behavior versus the degree to which he feels reward is controlled by forces outside himself and may occur independently of his actions. When reinforcement is perceived as not entirely contingent on one's own behavior, it is seen as a chance occurrence due to luck or fate. Rotter states that there are consistent individual differences in the degree to which people believe that reinforcements are under their personal control in the
same situation, and he and his colleagues developed the Internal-External Control Scale to measure these differences.

The internal-external control variable has also been shown to be related to other personality characteristics. Work by McClelland, Atkinson, Clark, & Lowell (1953) and Crandall (1963) suggests that people who are high on the need for achievement have a strong belief that their own ability or skill will determine the outcome of their efforts. Franklin (1963) hypothesized relationships between internal-external control and seventeen evidences of achievement motivation among high school students (e.g. intention to go to college, amount of time spent doing homework) and found significant relationships in the predicted direction in fifteen cases. It appears that internals tend to manifest greater interest and effort in achievement-related activities than do externals.

Work by Hersch & Scheibe (1967) suggests that the greater interest and effort manifested in achievement situations by internals may extend to other situations as well. They correlated internal-external control scores with scores on the California Psychological Inventory and scores on the Adjective Check List and found that internal subjects were more assertive, achieving, powerful, effective, industrious, conscientious, deliberate, and determined than external subjects. These results suggest that the internal person expends greater effort, not only in achievement situations but in many other situations as well. As an example, Hersch and Scheibe found internal college student volunteers in mental hospitals to be more effective in dealing with patients than were external volunteers.

Several other investigators have also shown that internals exhibit
more initiative in their efforts to attain goals and to control their environment than do externals. Phares (1965) found that in a laboratory setting internal experimenters were able to induce significantly greater changes in expressed attitudes than were external experimenters. Among inmates of a reformatory, Seeman (1963) found significant correlations between internal-external control and the amount of information remembered about the administration of the reformatory, parole, and long-range economic facts that might affect the inmates after they were released. Political activists, whose behavior reflects an expectancy that their efforts will succeed, have also been found to be more internal than external (Core & Rotter, 1963; Strickland, 1965), and in an investigation of workers in Sweden, Seeman (cf. Lefcourt, 1966) found that membership in a union and activity within the union were significantly related to internal control. These studies seem to indicate that the more internally controlled person is more successful and perhaps therefore more satisfied in a wide variety of situations.

In a study of patients in a tuberculosis hospital, Seeman & Evans (1962) found, as might be expected from the previous discussion, that the extent of a patient's knowledge of his condition was highly correlated with the internal-external control variable. The investigators also found, however, that there was no connection between internal-external control and relative satisfaction with the information provided about medical condition by the hospital or satisfaction with the hospital situation in general until structure of the ward the patient was in was taken into account. Structure of the wards differed in amount of stratification. On the more highly strat-
ified wards, information was more difficult for the patients to get, and it was found that internal patients were significantly more satisfied in the high stratification condition than were externals, while there were no satisfaction differences in the low stratification conditions. Seeman and Evans attempted to explain these results by suggesting that internals were happier than externals with highly structured wards because they could see the relationship between the controls applied and the intended outcome. External persons, on the other hand, tend to be more passive, and therefore external patients were happier when information was given to them (low stratification) and unhappy when they were forced to seek it out (high stratification). Post hoc explanations aside, it appears that structuredness of the situation ought to be further considered as a variable that may mediate relationships between internal-external control and feelings of satisfaction and success. Since internals have been shown to excel in a wide variety of situations (Strickland, 1965; Seeman, 1962; Hersch & Scheibe, 1967), perhaps the influence of structuredness would be more pronounced among external subjects.

The structuredness variable itself has been studied in another context by Kelly (1969), who observed different high school environments to determine whether they all had the same range of settings and whether the same settings served the same functions across schools. He found two types of environments, which he termed fluid and constant. The fluid high school environment was characterized by a high percentage of entrants leaving within a school year, while the constant environment had a very low student turnover. Kelly made a number of predictions about the social environments
of the schools that he felt should occur as a function of the fluid or constant structure of the school setting. One of the consequences of being in a rapidly changing environment, for example, might be multiple bases for status generation. In the constant environment, on the other hand, there would be few bases for status differentials. Also, the fluid environment would be expected to be more responsive to individual variation, while the constant environment would be less tolerant, requiring persons to alter their behavior to fit the society. In other words, the implication is that an individual's ability to relate to the institution should vary according to the structuredness of that institution.

The foregoing discussion points to the importance of exploring the relationship between the internal-external control variable and attitudes of success and satisfaction toward institutions of varying structuredness. Using Kelman's participatory research approach as a basis for the methodological approach, the hypothesis investigated in this study is that the relationship between internal-external control and attitudes toward various institutions will vary according to structuredness, and that this variation may be more apparent among external subjects.
PROCEDURE

Scale Development

This study was conducted under the auspices of a neighborhood youth center on the north side of Chicago. Ten subject-collaborators holding a variety of attitudes on issues relevant to the study were recruited from the membership of the youth center to participate in the early stages of the research. These collaborators also attended a high school near the center, so this school and the center served as the two institutions focused upon in the study.

Three questionnaire measures were developed by the researcher and the collaborators in a three-step process. First, the researcher conducted open-ended interviews with each subject. The purpose of the interviews was to define the variables under study in terms that were salient to these subjects and relevant to the subject population. Each interview lasted approximately one to two hours and consisted of questions dealing with the subjects' own attitudes on the issues, as well as their opinions on how best to measure these attitudes among high school students.

Content analysis of interview responses provided the researcher with the material to generate a tentative list of questionnaire items. These items were then submitted to groups of two or more subject-collaborators for further discussion and refinement. The final rewording and selection of items produced three scales, described in the following sections.

**Internal-External Control.** In the time since Rotter (1966) constructed the Internal-External Control Scale to measure differences in the degree
to which people believe that reinforcements are contingent upon their own behavior, other researchers have discovered problems with the measure. Gurin, Gurin, Lao, & Beattie (1969), in their study of motivational dynamics of Negro youth, pointed out that there should be a distinction between scale items that refer explicitly to the respondent's own life situation and those that seem to tap beliefs about what causes success or failure for people generally. Mirels (1970) identified two similar factors in his Varimax rotation analysis of responses to the Rotter scale. In generating an internal-external control questionnaire tailored to high school students, the researcher and the subject-collaborators agreed that items should be concentrated within the factor concerned with the amount of perceived control a respondent possesses personally. In addition, it was agreed that items should be relevant to students' patterns of social interaction, consistent with Coan's (cf. Joe, 1971) criticism that the Rotter scale does not deal enough with situations of interpersonal and intrapersonal concern (e.g. personal habits, traits, or goals).

Discussion of these issues of defining internal-external control resulted in the conclusion that the measure to be used in this study should be designed around situations a high school student encounters regularly, with a response dimension defined in terms of a 4-point range of active versus passive responses to these situations. The internal-external control scale generated on this basis contained fifteen items representing various situations, each with four multiple choice responses representing potential reactions covering the range of responses from internal (active) to external (passive). (See Appendix I for scale and scoring key.)
Attitudes Toward High School. The second issue the researcher discussed with the collaborators was that of tapping students' feelings of satisfaction and success toward high school. As a result of discussion with students, aspects of the school experience, such as social life and relationships between teachers and students, were included in this variable, in addition to more traditional issues such as grades received, interest in courses, and feelings about homework. Fifteen items dealing with these aspects of high school experience were generated, and each item was followed by a choice of four responses ranging from highly positive to highly negative. (See Appendix I for scale and scoring key.)

Attitudes Toward the Center. The third dimension of the questionnaire was designed to test attitudes toward the youth center in which the student-collaborators were involved. The center provided an institution considerably less structured than the typical high school, being a very loosely constructed organization in which high school young people have the opportunity to define their own responsibilities and programs. The philosophy upon which the twenty-member staff bases the running of the center stems from the assumption that in this society young people are not often given the opportunities or responsibilities that would allow them to employ their talents in rewarding, constructive ways, so that young people often become bored and inactive and may turn to drugs. The purpose of the center is to provide situations that encourage young people to use their creative energy profitably and responsibly so that drug abuse is not a meaningful or satisfying alternative. The center had been in operation for only five months when this study began. Plans had been made for the establishment of outpost
centers near other high schools in the area, but these additional facilities were not opened until the end of the period in which this study was conducted.

It was decided that a scale should be developed to measure feelings of satisfaction and success toward the center in a way comparable to the measurement of attitudes toward high school; therefore, the items were selected to parallel as closely as possible those on the scale measuring attitudes toward high school. (See Appendix I for scale and scoring key.)

Data Collection

When the three-part questionnaire had been completed, each collaborator took ten copies to distribute to respondents of his choice in his high school. In order to assure that the results of the data gathering were as informative as possible, each collaborator was instructed to 1) make sure each subject filled out the questionnaire alone, with no discussion, 2) insist that subjects completed the questionnaire in his presence, so they would spend about the same amount of time on it and so he was available for questions, and 3) ask subjects to help insure anonymity by not putting their names on the questionnaire. The researcher felt that an advantage of Kelman's (1971) participatory research methodology was the access to the subject population afforded him through his collaborators. Presumably the subject-partners had invested enough time and effort in the research to be willing to contact potential respondents and encourage thoughtful, sincere responses from them. However, under the time pressures operating, only 45 completed questionnaires were obtained with this direct contact procedure. In order to
increase the number of respondents, arrangements were made with high school administrators to allow the researcher to give the questionnaire to students in three general music classes.* Data for 53 more subjects were gathered in this way, bringing the total N for this high school to 98.

In order to increase the overall sample size and to obtain attitude responses toward an institution somewhat less structured than the first high school, the researcher received permission to distribute the questionnaire in a second high school.** This high school would be characterized differently from the first high school on the structuredness dimension described by Kelly (1969). The first high school is a small school with a very low rate of student turnover, while the second high school is a larger school with a less stable student body. Also, the administration in the first school is more structured than the administration in the second high school. There is much more contact between students and counselors and more direction given to students in the first high school.

Since the researcher had no student contacts in the second high school, the in-class data gathering procedure was exclusively employed for data collection there. Students in two music classes were given the questionnaire, and the resulting total N for the second high school was 68.

Center attitudes could only be assessed among those students in the first high school who had either heard of the center or who had in some way

*General music is a required course and therefore provided a sample assumed to be representative of the high school population.

**An outpost center had been planned near this school, but it was not yet fully operational.
participated in center-sponsored activities. Students in the second high school and students in the first high school who had no knowledge of the center could not respond to this scale. For this reason, the total N for the scale measuring attitudes toward the center was 57.
RESULTS

Scale Analysis

After summary statistics were computed for each of the three scales, internal consistency and reliability analyses were done on each set of questionnaire responses. Since there are two traditional means of obtaining a single overall score for a respondent on a measure—simple summation of scored responses and Guttman scale analysis—criteria for evaluating scales using assumptions from both types of methods were employed. In the Guttman method a person's pattern of responses to items is assumed to be reproducible from his total score; that is, respondents who have the same total score should have endorsed the same items, and individuals who responded positively to a particular item should also have responded positively to all items of greater popularity. Thus the major criterion for evaluating scales in this tradition is the extent of reproducibility of the pattern of responses to items from total scores. When using the summation method the actual pattern of individual responses is not important in evaluation of the scale. Instead, homogeneity of items is the major criterion, and scales are judged as satisfactory when each item has a high correlation with the total score and with the other items in the scale.

Scale item analyses were obtained from the Atscale program for evaluating the unidimensionality and single-factoredness of responses to a series of questions, which is available at the Northwestern University computer facility. Pearson product-moment intercorrelations were computed for each scale, in which each item was correlated with every other item in the scale.
A corrected item-total correlation was also computed for each item, in which the item being correlated was omitted from the total so that it would not contribute to an artificially high correlation.

A Guttman scalogram was constructed based on dichotomized responses to each item. The program ordered items on the dimension of popularity and ordered each individual's responses according to number of total endorsements of items. Item marginals, or the number of respondents endorsing each item, were computed as an index of heterogeneity or item variance. The Guttman coefficient of reproducibility and its statistical probability were also computed.

Other statistics computed included the Kuder-Richardson 20 for dichotomized scores, which measures the internal consistency of items, the Kuder-Richardson 21 Reliability (or Coefficient Alpha) for continuous scores, and the Wolins Index of single-factoredness. A summary of these statistics for each of the three scales follows.

**Internal-External Control.** For the internal-external control scale the total N=151. Data from 12 respondents were dropped because responses had not been given for each of the fifteen items on this scale. With possible total scores ranging from 15 to 30, the mean total score was 25.29 and the standard deviation was 2.87. The distribution of scores was fairly symmetrical but toward the positive end of the scale.

Inspection of the Pearson product-moment intercorrelations revealed generally positive correlations among items. (See Appendix II.) The corrected item-total correlations were all significantly greater than .00, and the range of these correlations was from .168 to .421.
The spread of item marginals, the number of individuals responding positively to each item, was between 36 (for the least popular item) and 131 (for the most popular item) according to the Guttman scalogram analysis. These figures indicate a sufficient amount of item variance. The Guttman coefficient of reproducibility was .854 with a probability of .000001.

In the first set of analyses of the internal-external control scale the Kuder-Richardson 20 index based on dichotomized response scoring was .718, while the Kuder-Richardson 21 Reliability index using continuous scores was .665, indicating that there was no advantage in using continuous scoring over dichotomous scoring because no extra variability was picked up by the usually more sensitive continuous 4-point scoring method. For this reason, the researcher decided to use only dichotomized scoring on the internal-external control scale and its subsequent analyses. The Wolins index of single-factoredness for this scale was .9552.*

Attitudes Toward High School. For the attitudes toward high school scale the total N=161. Two respondents' data were dropped because responses had not been given for each of the fifteen items on this scale. With possible total scores ranging from 15 to 60, the mean total score was 39.75 for both schools combined, with a standard deviation of 8.24. The mean for High School I was 38.67 and the mean for High School II, 41.50. A t-test of the difference between these two means revealed a statistically significant difference. This result could be due to the differential sampling methods in the two schools. Forty-five students in High School I were personally contacted by

*Although no error term has been established for this index, a value over .90 is considered satisfactory.
collaborators, while 53 were contacted through music classes. The personally contacted respondents were also reached one to four weeks earlier than the in-class respondents. When the responses from High School I were analyzed separately in the two respective groups, the mean of the personally contacted group on the high school attitude scale was 35.08, while the mean for the in-class group was 41.82. This latter value was much closer to the mean in the second high school, clearly showing that the original difference between the means of the two high schools on this scale was entirely due to sampling differences.

Pearson product-moment intercorrelations between items yielded all positive correlations among the items on this scale. (See Appendix II.) The corrected item-total correlations were all significantly greater than .00, and they ranged from .232 to .685.

Item marginal spread was between 45 for the least popular item and 136 for the most popular item, reflecting a satisfactory amount of item variance. The Guttman coefficient of reproducibility was .836 with a probability of .000001.

The Kuder-Richardson 20 for dichotomized scores was .827, while the Kuder-Richardson 21 Reliability for continuous scores was .866. (All further computations were based on continuous scoring.) The Wolins index of single-factoredness was .9420. This index and the others reported above indicate that the success and satisfaction components of this scale did not represent two separate factors so that total scores on the scale could be treated as reflecting a single attitudinal dimension.

Attitudes Toward the Center. For the attitudes toward the center scale
the total \( N=57 \). The 65 respondents from High School II did not complete this scale, nor did 41 respondents from High School I. With possible total scores ranging from 15 to 60, the mean total score was 38.558 and the standard deviation was 8.89.

Pearson product-moment intercorrelations yielded generally positive correlations among most items on this scale. Items 31 and 35, which dealt with amount of involvement with the center, were not generally correlated positively with the other items, however. This lack of correlation was due to the lack of variability in responses to these items, reflecting the low number of respondents who were active participants in the center. Thus most subjects were responding to the idea of the center rather than to an impression formed through participation in activities there. Corrected item-total correlations also revealed low correlations for items 31 and 35 (.033 and .068, respectively). The other item-total correlations were significantly above .00, ranging from .477 to .750. Since the scores from items 31 and 35 did not contribute much to total variance, it was decided that they could be included in the scale sum without affecting relationships between this scale and the other measures in the questionnaire.

Item marginal spread was between .13 for the least popular item and 56 for the most popular item. The Guttman coefficient of reproducibility was .866 with a probability of .000001. The Kuder-Richardson 20 (for dichotomized scores) was .833, and the Kuder-Richardson 21 Reliability, .872. The Wolins index of single-factoredness was .9086, again indicating a satisfactory unidimensional scale.

Within High School I a correlation was computed between scores on the
attitudes toward high school scale and scores on the attitudes toward the
center scale. This correlation was found to be .11 with N=58, which is
not statistically significant. Thus, even though items on the two scales
were often parallel, their independence is indicated, suggesting no strong
response set biases operating to inflate correlations.

Relation Between Internal-External Control and Attitudes

When the individual scale analyses were completed, correlations were
computed between internal-external control scores and scores on the atti-
tude toward high school scale. A positive correlation of .44 (significant
at the .001 level with N=149) was obtained when respondents from both high
schools were combined. Within High School I this correlation was .37 (sig-
nificant at the .001 level with N=90), and within High School II the cor-
relation was .52 (significant at the .001 level with N=59). These differences
in correlations between the two high schools could be due to the differential
sampling reported earlier. A breakdown of the two groups of respondents in
High School I (those contacted personally versus those contacted in class) re-
vealed no difference in the distribution of internals and externals in the
two groups, but it did show a difference in the correlations between inter-
nal-external control and attitudes toward high school for the two groups.
This correlation for the personally contacted respondents was .24, while it
was .60 for the in-class respondents. This second value was much closer
to the .52 correlation reported for High School II. The difference in the
correlations for the two groups of respondents in High School I was due to
internals in the personally contacted subsample having a lower mean attitude
toward high school (M=35.5) than those in the in-class subsample (M=44.8). Externals in both subsamples were not significantly different (M=34.20 and M=37.7, respectively). Thus, if samples are comparable (i.e. in-class respondents from both schools), there is no evidence that the two high schools are structured differently enough to influence relative satisfaction of internals and externals.

For testing theoretical issues, the correlation between internal-external control and attitudes toward high school alone is not of critical importance. Instead, whether there is any relationship between this personality dimension and differential attitudes toward the high school and the center is crucial. For purposes of making such a comparison, those respondents in High School I who completed both the high school and center attitude scales provided the relevant sample. First, responses of subjects who did respond to both scales were examined relative to their standing on the internal-external control dimension. Respondents on the internal-external control scale were classified as high (internal) if their total score was above the mean (scores of 26 and above) and low (external) if it was below the mean (scores of 25 and below). This division resulted in a 41 (externals) to 49 (internals) split among respondents in High School I who completed the internal-external control scale.

Inspection of attitude response patterns suggested that responses on the attitudes toward the center scale were differentially distributed according to high school attitudes for internal subjects, but no such relationship seemed to hold for external subjects. This apparent relationship was further investigated by correlating degree of participation at the center (partici-
pator, non-participator responder, non-participator non-responder) with scores on the attitudes toward high school scale separately for internal and external subjects. The correlation obtained for internal subjects (N=49) was -.57, while for external subjects (N=41) it was .05. The difference between these two correlations was significant at the .0007 level. These differential correlations suggest that internal subjects who were least satisfied with high school were the ones who sought out the center for additional fulfillment of needs, while those who were relatively satisfied with school did not bother exploring an institution such as the center. However, among external subjects no such differential need governed center attendance. External subjects both satisfied and dissatisfied with school were among those who participated in activities at the center, while internals who did so were, as a whole, those most dissatisfied with school.

Since internal and external subjects differed in reasons for attending the center, there was reason to believe they would show different patterns of satisfaction with the center relative to their attitudes toward high school. A repeated measures analysis of variance was performed to compare internal scorers with external scorers on high school attitude scores and center attitude scores, using data only from those respondents who completed both attitude scales (N=57; 26 internals, 31 externals). For purposes of this analysis, scores on each attitude scale were converted to standardized (Z) scores relative to the total respondent population mean and standard deviation. The results of this analysis are reported in Table I, with corresponding means reported in Table II. The main effect for internal-external control reached significance, reflecting that externals were more
generally dissatisfied with both institutions than were internals, even though the internals included in the analysis were those with relatively more negative attitudes toward high school. The interaction between internal-external control and the two sets of attitudes reached the .07 level of statistical significance, with internals showing a more positive attitude toward the center than toward high school and externals showing no difference.

These results suggest that structuredness of the institution and internal-external control may interact to produce differing attitudes toward the two institutions.

*It should be noted that while internals and externals did show a difference in ratings of satisfaction with the center, the two groups did not differ in their responses to the scale item dealing with membership in the center. Thus, their differential attitudes are not due simply to differential participation.
### TABLE I

**ANALYSIS OF VARIANCE RESULTS**

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### TABLE II

**GROUP MEANS**

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DISCUSSION

Methodological Implications

The primary advantage resulting from use of Kelman's participatory research approach in this study was the type of items generated for the three scales. Because these items were derived from interviews and discussions with high school young people, they were assumed to be relevant and meaningful to the subject population. By including potential subjects in the development of the questionnaire, the normally imperative pilot test for scales such as these could be omitted because it could be assumed that the scales would appropriately measure the three concepts which they were designed to tap. In this case, instead of generating large numbers of items for pilot testing in order to screen those most adequate for a unidimensional scale, sets of only fifteen preselected items were sufficient to produce measures of satisfactorily high psychometric quality. It must be emphasized, however, that in this study the feasibility of this type of methodology has been demonstrated only for survey type research. Further work must be undertaken to clarify the advantages and disadvantages of this type of methodology for other kinds of psychological research.

Theoretical Implications

An indication of the validity of this study's measure of internal-external control is demonstrated by the finding that those respondents classified as internal had differential personal needs associated with their center participation, while those classified as external did not. Inter-
nals who participated in center activities were much more dissatisfied with high school than internals who did not participate or those who had no interest in the center, while there was no such relationship between center participation and attitudes toward high school for external subjects. In addition, those internal respondents who did show interest in the center had more positive attitudes toward it, relative to their high school attitudes, than did external respondents.

The positive correlations between internal-external control and attitudes toward high school were also theoretically significant because these correlations imply a relationship between an individual's ability to act on his own behalf and his ability to relate successfully to the high school institution.* The data suggest that the more pressure there was for a student to get by on his own, the greater was the dissatisfaction of the external respondents. Externals seem much less able than internals to adapt their environment to their own needs. This conclusion was suggested by the evidence that when externals were involved in an institution less structured than the high school (i.e. the center) they were no more successful or satisfied with their participation in that institution than with their involvement in high school. Internals, on the other hand, show more ability to structure situations to their own needs. Many internals in this study were satisfied with high school, but many who were not sought out the center.

*The implications discussed in this section are based on assuming that the direction of causality in these relationships is from personality disposition (internal-external control) to specific attitudes. The reverse causal assumption—that satisfaction and success in an institution such as high school produces greater internal control of responses—cannot be dismissed on the basis of correlational evidence, but seems less plausible given the total pattern of data obtained in this study.
for fulfillment of certain needs, and their higher satisfaction scores reflected their success at achieving this goal.

These results seem to contradict those of Seeman & Evans (1962), in which external patients were more satisfied in low structured wards and less satisfied in highly structured wards. This contradiction is resolved when it is noted that in the high structured wards, information was difficult to obtain and had to be actively sought out by the patients, while in the low structured wards information was given to patients more readily by the hospital staff. The high structured ward corresponds more closely to the least structured institution in this setting because in both cases the people involved had to make more of an effort to derive information and satisfaction from their experiences. It appears that externals might function best in a situation where they can be given a certain amount of personal direction.

The work of Kelly (1969) is also relevant here. He hypothesized that students who were internally controlled would function more successfully in a fluid high school environment, while those who were externally controlled would function better in a constant high school environment. Given the character of these two environments, Kelly's predictions are consistent with the previously mentioned implications.

Practical Implications

Of practical interest to high school administrators are the means for items on the scale measuring attitudes toward high school. It must be emphasized that the scores obtained on this scale probably reflect the most positive attitudes possible among students because the questionnaire was
administered at the very end of the school year. In looking closely at individual items it becomes clear that the items with the highest means (including number 23 (M=3.41), which asks, "If you didn't have to go to school, would you?"; number 22 (M=3.12), which asks, "Are you absent often?"; and number 17 (M=2.97), which asks, "What is the relationship between high school and your future life?") are those which indicate high school students' willingness to go to school, whether they are satisfied with the form and content of their experience or not. The items with the lowest means included number 18 (M=2.24), "How do you feel about doing homework?"; number 27 (M=2.32), "Are you satisfied with the opportunities for social life at school?" and number 29 (M=2.33), "Do you participate in any extracurricular activities sponsored by the school?" The low means on these items suggest that students feel that their school experience does not or should not extend beyond the official hours of the school day. Since it appears that students basically want to go to school, other problems such as dissatisfaction with homework or poor relationships with teachers should be easily remedied because they are not symptoms of a more basic problem of lack of desire to attend school at all. The results also suggest, however, that high school is seen as a functional rather than as a rewarding experience.

What is more importantly indicated in this study is that success and satisfaction within an institution appears to be mediated by a personal variable, internal-external control. From the data in this study it appears that external students, as a whole, were not very satisfied with their high school experience. It seems that in order to provide externals with a more satisfying high school experience, these institutions must be more struc-
tured, in the sense of producing more personal direction. Since externals were no more satisfied with the center than with the high school, the loose structure provided at the center is probably not the answer. Personal contact with the center staff is very frequent and important for center participants, but there is little direction from the staff in the form of projects and activities. The center participants are urged to take this responsibility upon themselves.

The implications of this study for internal high school students are quite different because internals should have the capacity to function well within an institution as given. When, however, internal students are dissatisfied with an institution such as high school, their dissatisfaction seems to arise because of a greater need for self-direction and responsibility. Such a trend was suggested by the finding that internal subjects who were most dissatisfied with their high school experience were those who participated in activities at the center. The center seems to provide a good example of the type of institution in which internals could function well.

The implications of this study are different for internals and externals because the results suggest that externals need more personal direction while internals need more personal responsibility. It is not impossible for opportunities to satisfy both types of needs to exist in the same institution. These needs could be fulfilled in a high school with a creative administration and a flexible curriculum. Maximum opportunities for student satisfaction and fulfillment could be achieved through emphasis on individually directed programs and differing levels of student responsibility. Since young people spend much of their time and energy in school, it seems imperative
that these institutions be flexible enough to provide opportunities for satisfaction of the needs of all kinds of students.
REFERENCES


Franklin, R. Youth's expectancies about internal vs. external control of reinforcements related to N variables. Unpublished Doctoral Dissertation, Purdue University, 1963.


Rotter, J. Generalized expectancies for internal vs. external control of reinforcement. Psychological Monographs, 1966, 80, (1, Whole No. 609).


APPENDIX I

Circle one:

Grade in school: 9 10 11 12

Sex: Male Female

Part I  INTERNAL-EXTERNAL CONTROL

Circle the letter of the one response that best represents your typical reaction.

1. If the assistant principal were yelling you out for something you didn't do, what would you do?
   - A. That would never happen to me—I avoid trouble.
   - B. I would try to reason with him—maybe prove with witnesses that I didn't do it.
   - C. I'd just explode—there's no use trying to explain things to him.
   - D. I would just let it be.

2. If you were to get good grades, why might it happen?
   - A. It would be mostly because of my ability or my effort.
   - B. It would be mostly because of my good relationship with the teacher.
   - C. It would be mostly because I have a good reputation.
   - D. There would really be no reason.

3. If you were to get bad grades, why might it happen?
   - A. It would be mostly because of my ability or my effort.
   - B. It would be mostly because of my bad relationship with the teacher.
   - C. It would be mostly because I have a bad reputation.
   - D. There would really be no reason.

4. If you were to think about making changes in society, which would you do?
   - A. I would often think about it in terms of actions I myself can accomplish.
   - B. I would often think about it in terms of getting groups of people together to do something.
   - C. I would think about it only when something bad about it affected me personally.
   - D. I would never give it too much thought because there is nothing I can do to change it.

5. If you had a job and a new boss that you didn't like was put in charge, which would you do?
   - A. I'd just keep quiet—the job would be too important to risk losing.
   - B. I'd quit without saying anything.
   - C. I'd quit or make trouble if the man made trouble for me, but not until he did.
   - D. I'd try to talk to somebody about it—maybe his superiors—and try to change the situation.

6. If you're bored in class, what do you usually do?
   - A. I go to sleep or cut the class often.
   - B. I make trouble to disrupt it.
   - C. I read something or do something else that is interesting.
   - D. I do something to avoid having such classes.
7. If you wanted to do well in class and you were unsure about what a teacher expected, what would you do about it?
   + A. I'd see the teacher after class or ask him questions in class.
   + B. I'd ask other students.
   - C. I'd make a fuss, for example, after a test if I did badly and the directions weren't clear.
   - D. I wouldn't do anything.

8. If you did something with a group of friends that might get you into trouble that you wouldn't want, how would you feel?
   + A. I would feel that it was probably my fault that the group went ahead with it.
   + B. I would feel that I should have done something to prevent it.
   - C. I would feel somewhat uneasy personally, but I wouldn't feel responsible.
   - D. I wouldn't worry about it because it would be the responsibility of the whole group.

9. If a friend wanted you to go somewhere with him and you didn't want to, what would you do?
   - A. I'd probably go—I have trouble saying no.
   - B. I'd go if he really pleaded with me.
   + C. I wouldn't go if I could think of an excuse.
   + D. I wouldn't go and I wouldn't need an excuse.

10. If you want to, do you get along with your parents?
    + A. Basically yes, I know what to do to get what I want from them.
    + B. If we get along I am the one that has to make the effort.
    - C. We wouldn't get along unless they made the effort.
    - D. It would be hopeless to try.

11. If you were grounded what would you do?
    - A. I would just sit around and moan.
    - B. I would get pretty angry and fume.
    + C. I would do something in order not to waste time.
    + D. I would go out anyway.

12. How do you feel about a class you have to take but don't want to?
    - A. It frustrates me, but I don't do anything about it.
    - B. I get angry and don't care if I pass.
    + C. I do what I have to to get through it.
    + D. I would try to do something to make the class more interest to me.

13. How do you feel when something you plan to do gets cancelled?
    - A. It doesn't bother me too much.
    - B. I get upset but do nothing.
    + C. I'd be disappointed but I'd just do something else.
    + D. I'd find out what happened so maybe I could prevent it the next time.

14. How would you feel about a member of your group taking advantage of the rest?
    - A. I wouldn't know what to do, so I wouldn't do anything.
    - B. I'd just try to avoid him.
    + C. I'd let my feelings be known to other members of the group.
    + D. I would see to it that the group did something to change him.
15. If you were to get into trouble, why might that be?
   + A. It would probably be my own fault because of something I was trying to do.
   + B. It would probably be my fault because of something I did unintentionally.
   - C. It would probably be because someone pushed me too far or dared me.
   - D. It would probably be because I got blamed for something I didn't do.

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**Part II** ATTITUDES TOWARD HIGH SCHOOL

16. Do you generally enjoy going to school?
   + A. Yes, I enjoy a lot about school.
   3 B. Yes, I enjoy some parts of school.
   2 C. I enjoy a little about school.
   1 D. I don't get anything out of school.

17. What is the relationship between high school and your future life?
   + A. High school is very relevant; it will definitely help in my work and/or my personal life.
   3 B. High school is moderately relevant; I am learning some important things for the future.
   2 C. High school is not very relevant; only occasionally do I think things I learn will apply to my future life.
   1 D. High school is irrelevant; I can't see any benefits from high school in my future.

18. How do you feel about doing homework?
   + A. I usually enjoy doing it.
   3 B. I sometimes enjoy it.
   2 C. I do it only when I have to.
   1 D. I almost never do it—I think it's meaningless.

19. If you could change things at school, which would you do?
   + A. I would keep things pretty much the same.
   3 B. I would make minor changes, for example, in the rules.
   2 C. I would make pretty big changes, for example, student participation in hiring and firing of teachers.
   1 D. I would scrap the whole thing and start over.

20. What kind of grades do you get most frequently?
   + A. A's
   3 B. B's
   2 C. C's
   1 D. D's
   + E. F's
   (circle more than one if necessary)

21. How long should a person be required to attend school as it is now?
   + A. There should be no requirements.
   3 B. Through the eighth grade.
   2 C. Through the tenth grade.
   1 D. Through the twelfth grade or longer.

22. Are you absent often?
   + A. Yes, I cut whenever I want to.
   3 B. Sometimes I cut without a good reason.
   2 C. Sometimes I'm absent when I have a good excuse besides being sick.
   1 D. I'm absent only when I'm really sick.
23. If you didn't have to go to school, would you?
   1. Yes, I think it's basically worthwhile.
   2. Yes, I haven't anything better to do.
   3. No, I can think of better things to do.
   4. No, I don't know what I'd rather do, but school is a waste of time.

24. At school are you usually
   1. Bored almost all the time.
   2. Interested in classes occasionally.
   3. Interested in classes more often than not.
   4. Interested in almost all classes.

25. Which best describes teachers' relationships with students?
   1. They generally respect and respond well to students.
   2. They generally think they try, but have trouble relating to students.
   3. They generally don't respect or care much about students, with a few exceptions.
   4. They almost never try to relate to students.

26. In general, most teachers
   1. Are consistently interesting and knowledgeable in the classroom.
   2. Are usually interesting and knowledgeable in the classroom.
   3. Are occasionally interesting and knowledgeable in the classroom.
   4. Are rarely interesting and knowledgeable in the classroom.

27. Are you satisfied with the opportunities for social life at school?
   1. Yes, I'm very satisfied.
   2. Yes, I'm fairly satisfied.
   3. I'm only sometimes satisfied.
   4. I'm usually dissatisfied.
   5. That's not important to me.

28. Are you satisfied with the opportunities for learning at school?
   1. Yes, I'm very satisfied.
   2. Yes, I'm fairly satisfied.
   3. I'm only sometimes satisfied.
   4. I'm usually dissatisfied.
   5. That's not important to me.

29. Do you participate in any extracurricular activities sponsored by the school?
   1. Yes, often (2 or more).
   2. Yes, sometimes (2 to 3).
   3. Yes, occasionally (1).
   4. No, seldom, or never.

30. Are you satisfied with the way the school is run by the principal and the assistant principals?
   1. Yes, I'm very satisfied.
   2. Yes, I'm fairly satisfied.
   3. I'm only sometimes satisfied.
   4. I'm usually dissatisfied.

Part III  ATTITUDES TOWARD THE CENTER

31. Are you involved in any way at Alternatives, Inc.?
   1. I know of Alternatives only by reputation.
   2. I have been there a few times but have not decided to become a member.
   3. I am in a new members group seeking membership.
   4. I am an active member participating in more than two activities.
   5. I used to be involved at Alternatives but I'm not anymore.
(If you are not a Center participant, answer the following questions according to how you think you would feel, based on what you've heard about the place.)

32. Do you enjoy going to the Center?
   4 A. Yes, I get a lot out of it.
   3 B. Yes, I get a moderate amount out of it.
   2 C. I get a little out of it.
   1 D. I don't get anything out of it.

33. What is the relationship between the Center and your future life?
   4 A. The Center is very relevant—what I do there will help in my work and/or my personal life.
   3 B. The Center is moderately relevant—I can learn some important things for the future.
   2 C. The Center is not very relevant—only occasionally do I think things I learn there will apply to my future life.
   1 D. The Center is irrelevant—I can't see any benefits from it in my future.

34. If you could change things at the Center, which would you do?
   4 A. I would keep things pretty much the same.
   3 B. I would make minor changes, for example, in the rules.
   2 C. I would make pretty big changes, for example, more participation in decisions by the young people (or in the other direction—more staff control).
   1 D. I would scrap the whole thing and start over.

35. How often are you at the Center?
   4 A. Once a week or less.
   3 B. Two or three times a week.
   2 C. Four to five times a week.
   1 D. More than five times a week.

36. At the Center are you usually
   4 A. Bored almost all the time.
   3 B. Only occasionally interested in things going on there.
   2 C. Interested in something going on more often than not.
   1 D. Almost always interested in something that's going on.

37. What best describes the staff's attitudes toward high school people?
   4 A. They generally respect and respond well to young people.
   3 B. They generally think they try, but they have trouble relating to them.
   2 C. They generally don't respect or care much about the young people, with a few exceptions.
   1 D. They almost never even try to understand the young people.

38. In general, most of the staff are
   4 A. Interesting and knowledgeable most of the time.
   3 B. Interesting and knowledgeable some of the time.
   2 C. Only interesting and knowledgeable on a few certain topics.
   1 D. They're not very interesting and knowledgeable.

39. Are you satisfied with opportunities for social life at the Center?
   4 A. Yes, I'm very satisfied.
   3 B. Yes, I'm fairly satisfied.
   2 C. I'm only sometimes satisfied.
   1 D. I'm usually dissatisfied.
   1 E. That's not important to me.
40. Are you satisfied with the opportunities for learning at the Center?
   A. Yes, I'm very satisfied.
   B. Yes, I'm fairly satisfied.
   C. I'm only sometimes satisfied.
   D. I'm usually dissatisfied.
   E. That's not important to me.

41. How do you feel about the activities at the Center?
   A. They are consistently interesting and worthwhile.
   B. They are usually interesting and worthwhile.
   C. They are occasionally interesting and worthwhile.
   D. They are rarely interesting and worthwhile.

42. Are you satisfied with the opportunities at the Center to help people?
   A. Yes, I'm very satisfied.
   B. Yes, I'm fairly satisfied.
   C. I'm only sometimes satisfied.
   D. I'm usually dissatisfied.
   E. That's not important to me.

43. Are you satisfied with the way the Center is run?
   A. Yes, I'm very satisfied.
   B. Yes, I'm fairly satisfied.
   C. I'm only sometimes satisfied.
   D. I'm usually dissatisfied.

44. Does the Center provide you with opportunities to make friends with people you didn't know who are different from your current friends?
   A. Yes, I've made friends with quite a few different people.
   B. Yes, I've made friends with some different people.
   C. I haven't made too many new friends.
   D. I've stuck pretty much with my old friends.

45. How do you feel about your opportunities to contribute something to the Center?
   A. I feel I can contribute quite a bit.
   B. I feel I can contribute a moderate amount.
   C. I feel I can contribute a little.
   D. I feel I can't really contribute much.
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APPROVAL SHEET

The Thesis submitted by Susan K. Green has been read and approved by members of the Department of Psychology.

The final copies have been examined by the director of the Thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the Thesis is now given final approval with references to content and form.

The Thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

1/8/73
Date

Marilyn B. Brewer
Signature of Advisor