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DEVELOPMENT OF A PROJECTIVE TECHNIQUE FOR OBTAINING EDUCATIONALLY USEFUL INFORMATION INDICATING PUPILS' ATTITUDES TOWARD WORK AND OCCUPATIONAL PLANS. REPORT NO. 21. FINAL REPORT.

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The purpose of this study was to develop a projective technique which would (1) identify youths' attitudes toward certain distributive, construction, service, and agricultural occupation, and (2) identify factors associated with occupational aspirations. Interviews were conducted with 88 Caucasian and Negro Job Corps enrollees and 91 Caucasian and Negro ninth grade pupils using 10 drawings representing work typical of the occupations. Results indicated the nature of subjects' occupational preferences and ways these are influenced by factors such as socioeconomic status and self concepts. Practically all subjects aspired to occupational levels higher than the occupations of their parents. Perceptions of parental feelings only slightly affected the occupational interests of the subjects. Most subjects seemed to view work largely from a basic need level--food, shelter, clothing, etc.--with relatively little concern for satisfying higher needs. Few subjects expressed concern about abilities and aptitudes necessary for various jobs. This suggests that more knowledge of occupations and one's abilities and aptitudes are necessary for adequate occupational choice making decisions. Further research might focus on modifying this technique for use with groups. (CH)

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LeRoy C. Olsen
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William H. Venema

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SUMMARY

Purpose

The purpose of this study is to develop a projective technique that will provide teachers and counselors with evidence of pupils' attitudes toward some representative types of work and toward factors associated with their occupational aspirations and planning. The technique is intended mainly to evoke informative responses from youth who have restricted cultural backgrounds.

Procedure

Ten drawings representing work in distributive, construction, agricultural service areas, and one blank card were prepared for this project. These drawings were used as a basis for interviews with eighty-eight Caucasian and Negro Job Corps enrollees and ninety-one Caucasian and Negro ninth grade pupils.

Results

Results indicate that the technique does yield evidence of subjects' attitudes toward tasks, tools, materials, environments and human relationships associated with work. That evidence indicates the present nature of subjects' occupational preferences and goals and ways their goals are influenced by socio-economic status, self-concepts and felt needs for immediate and deferred economic and psychological security.

Recommendations for Further Development

The nature and usefulness of results suggest that the technique be extended and tested as a means of evoking responses indicating attitudes toward other types of occupations -- particularly occupations commonly pursued by women

and professional occupations. The technique should also be tested with subjects representing other age and socio-economic groups.

PURPOSE AND RATIONALE

In a free society vocational educators have responsibility for providing and helping youth perceive and acquire occupational goals and competence congruent with both the nature of the work-world and their self-actualization. The processes by which pupils develop occupational goals and competence are inevitably affected by the nature of earners and by their perceptions of occupations. Conventional vocational counseling procedures which attempt to match traits with jobs do not adequately consider the psychodynamics that affect occupational choice and development of occupational competence.

Vocational counselors and teachers have need for more accurate information about pupils' attitudes toward specific occupations and toward occupational situations. In a world of increasing occupational diversity such information, used in conjunction with facts about pupils' traits and capacities, will enlarge counselors' abilities to help pupils make vocational choices more congruent with their rights and needs for self-actualization. More adequate information about occupational attitudes will also enlarge the school's capacity to help pupils make occupational choices in which they are likely to experience both success and satisfaction. Such information will also help teachers facilitate and extend development of pupils' occupational competence.

Because attitudes are deep-seated feelings which influence and direct behavior, an understanding of pertinent occupational attitudes is of importance to vocational teachers and counselors.

Existing means of assessing pupils' occupational attitudes have serious limitations. To a small degree Strong, Kuder, and Lee-Thorpe interest inventories reflect attitudes. But they provide only limited information about the deeper feelings a person may have toward the totalities of work, environments, and personal relationships involved in various occupations.

Measures of young people's attitudes toward various kinds of work are commonly based on responses to names of occupations, or to phrases presumed to connote general types of work. Examples are "nursing," "retailer," "civil engineer," "secretary," "repairing a clock," "interviewing clients," "repairing automobiles."

What is known about perception, association, and semantics indicates that to most pupils such gross words and phrases are unlikely to connote more than a misleading fraction of the occupational realities researchers seek to consider in measurement of attitudes. For example, few high school girls have had actual experience with the specific tasks, materials, equipment, working conditions or human relationships involved in being a "nurse" or an "airline stewardess." Few boys are familiar with those dimensions of the work actually done by a pipe fitter, an engineer, a laboratory technician, or a banker. Responses to verbal or pictorial symbols for which the respondent has no experience referent are likely to be biased and misleading. Consequently, pupils' attitudinal responses to items such as "nurse," "stewardess," "baker," or "engineer" are probably quite imprecise measures of their attitudes toward the actualities of work in those occupations.

Substantiated principles of perception, association, and semantics indicate that more precise measures of attitudes toward types and conditions of work involved in various occupations require instruments designed to obtain responses to words and/or pictures that symbolize specific occupational components familiar to the respondent -- items for which he has experience referents.

Projective techniques appear to have substantial capability for meeting such needs. For those reasons, the staff of Project OE7-0031 has initiated the development and testing of a technique that will assess pupils' attitudes toward the acts, tools and/or equipment, materials, working environments, and interpersonal relationships associated with some major types of occupations in which substantial percentages of youth who do not complete college are likely to obtain employment.

Occupations selected for this experimental work include some commonly classified as distributive, construction, service and agricultural.

BACKGROUND OF CONCEPTS AND RELATED RESEARCH

The educational value of adequate attitudinal assessment is indicated by Allport ^{1,2,3} who notes that "an attitude is a mental and neural state of readiness organized through experience exerting a directive and/or dynamic influence upon the individual's response to all objects and situations with which it is related." This definition places attitudes in the framework of the concept of needs, drives, and motives, and consequently, point to the fact that attitudes constitute a basic and important aspect of the person's motivation, emotionality, and self-concept. Attitudes tend to be definite and specific emotionally toned ideas from the standpoint of the object, person, or situation to which they pertain and the value to which they are attached. The person's self-concept may be thought of as essentially the sum total of the attitudes and the values by which he lives.

The work of Bloom, Davis, and Hess ⁶ indicates that when children learn that their basic needs cannot be adequately provided for in a dependable way, they tend to adopt a fatalistic attitude which generalizes to alter their patterns of living. Their ability to cope with their environment is impaired. Such passivity, defeatism and possibly hostility caused by need deprivation is learned by the child from both the realities of living and from their parents who, through their daily behavior, communicate a general attitudinal orientation. This general attitude orientation can do much to give the child an outlook in which he expects to be frustrated in meeting his basic needs. Such expectations, in turn, determine his views about himself and his environment.

The need for adequate means of assessing pupils' attitudes toward various occupations and ways these attitudes effect occupational choice and adjustment have been recognized by vocational counselors for some time. The problem has been one of developing adequate instruments for attitudinal assessment.

McCabe ¹⁴ has appraised the trait-factor model as one approach to vocational counseling. In that approach assessment of aptitudes and interests plays a major role. The traditional vocational guidance approach has emphasized the

matching of the individual to an occupation. However, that procedure does not give adequate consideration to the influence of non-rational, emotional factors in vocational choice and adjustment.

Goodstein ¹⁰ suggests that an adequate theory of vocational development, choice, and adjustment must take into consideration both external reality factors and psychodynamics. More recent attempts to deal with the psychodynamic, non-rational, emotional aspects of occupational decision making are the components which distinguish modern vocational counseling from the less adequate concept of merely fitting the man to the job.

Lazarus conceives ¹² the essence of the phenomenological frame of reference to personality as follows: "The cause of action is the world as a person apprehends it privately. This privately apprehended world is the core construct of the theoretical positions of such phenomenologists as Lewin and Rogers. The self theory of Rogers utilizes the concept of phenomenal field (analogous to Lewin's life space) and the core, or the most important aspect of that field, is the self-concept. It is the self-concept that determines his behavior. The individual responds to the objective environment in terms of what he perceives it to be. The self-concept is extremely complex and not only includes who and what one is, but also comprises central values and belief systems."

Phenomenological theory revolves around the properties of the person which intervene between the stimulus and the response. Trait theory is response-centered or stimulus-response centered. Thus the study of attitudes and their assessment, due to their influence on perception and the self-concept, would seem to be vital to the understanding of occupational choice and occupational adjustment.

Forer ⁸ suggests that a comprehensive occupational theory must account for the development as well as the nature of individual differences in aptitude, interest, and performance. He believes that theory should also account for processes and problems of developing skills, knowledge, efficiency, productivity, creativity, attitudes, and interpersonal relationships. Forer believes that a total theory must deal with the interrelationships of all of these aspects of the person and the natural or real situations in which he works.

Goodstein supports Forer by noting that much theorizing has viewed occupational choice as an expression of personality without considering the important role of factors such as labor conditions, employment opportunities, hiring

practices, and pay scales. Goodstein also shares Forer's view that an adequate theory of vocational development must include consideration of both external realities and psychodynamics. Psychodynamics is not the only dimension involved; but more valid assessment of attitudes will make a valuable contribution to a comprehensive theory of vocational choice, adjustment, and counseling.

A basic assumption in the use of projective tests is that every subject's responses are more than the consequence of sheer accident. They are also affected by psychological attributes of the subject. Anderson and Anderson⁵ note that the fundamental characteristic of projective tests is the ambiguity of the task put to the subject: a task which permits him to respond in his own way. The assumption basic to this proposal is that since the projective device offers the subject wide latitude to reveal himself, the sample of responses supplied by the protocol will provide evidence of the subject's attitudes toward occupational situations.

Ammons, Butler, and Herzig⁴ attempted to adapt the Thematic Apperception Test to vocational settings largely professional or semi-professional in nature. The authors attempted to measure vocational attitudes and interests. Test data were limited to forty college men and thirty-five college women, results were inconclusive but suggested possible methods of attitudinal measurement. Forer⁸ developed a diagnostic interest blank which consisted of a large number of statements about hobbies, reading interests, occupational interests, hopes, ambitions, and so on. From that data some values and attitudes could be inferred.

Steiner²⁷ found that the Rorschach Test contributed to the overall evaluation of personality when personality traits were well defined in terms of occupational success. Mindess¹⁷ found that ego-strength as indicated by the Rorschach Test seemed significantly related to achievement in nursing training. Phelan's²³ study indicated that Rorschach Test and Thematic Apperception Test data proved to be the best predictor of promotion to administrative positions.

The OSS Assessment of Men,²⁰ while not characterized by rigorous experimental design, did experiment with considerable latitude in utilizing projective techniques.

While the results of research to date do not appear to have produced significant results in all cases, certain facts seem apparent. First, most of the research has been conducted with college students or professional groups; second, standard projective devices have been used, rather than adapting or developing projective devices utilizing

occupational themes; and third, projective devices have been used primarily for the purpose of studying personality rather than attitudes.

It is possible that the relationship between those personality and attitudinal factors affecting occupational choice and occupational adjustment of professional and semi-professional level personnel may be different than those affecting lower-level positions, especially unskilled or semi-skilled jobs. Goodstein has suggested that many lower-level workers seem to be motivated by economic factors, job titles, and even small increases in earnings. Such data indicates slight commitment to an "occupational choice."

When projective devices have been utilized in the prediction of occupational behavior, the empirical research findings have not been entirely encouraging. Roe and Mierzwa 26 have observed that while projective methods have contributed much to the development of hypotheses about the relationship between personality and occupations, once such hypotheses have been developed it is their belief that further research would be more useful if conducted with instruments more appropriately designed for hypotheses concerning occupations. The Rorschach Test, for example, has such a wide spectrum of responses possible that its value in focused application (occupational use) is doubtful.

Frank's 9 report of research in biochemistry may have implications for research in the psychology of occupations. Exploring the effectiveness of a pain-killer drug traditional investigations have examined the effectiveness of given compounds on experimental animals before testing them on human beings. Failures to produce the desired analgesic effects on animals have led to termination of further experimentation and drugs are discarded. In the instance cited by Frank, though the drug failed to demonstrate effectiveness as an analgesic in animals, for the first time in 80 years of research the investigators chose to go beyond the findings and proceeded to test the effect of the drug with humans-- and it worked. This finding could call into question many conclusions regarding the psychological functioning of humans predicted on research with infrahuman or subprimate organisms. It could also raise questions about many conclusions regarding various groups, levels, or classes when conclusions from one are generalized to the other. This was suggested by Miller and Riessman 16 whose work indicated that responses of low social class groups to projective tests tended to be interpreted as neurotic when in reality they were valid responses for those social groups. The stimuli presented by the usual projective test may not be applicable to the experiences of all people. Stimuli signifying elements of the world of work (e.g., tasks, unions, tools) may be

more meaningful to pupils whose parents are engaged in unskilled and semi-skilled occupations.

PROCEDURE

Interview Instrument

The interview instrument is designed to:

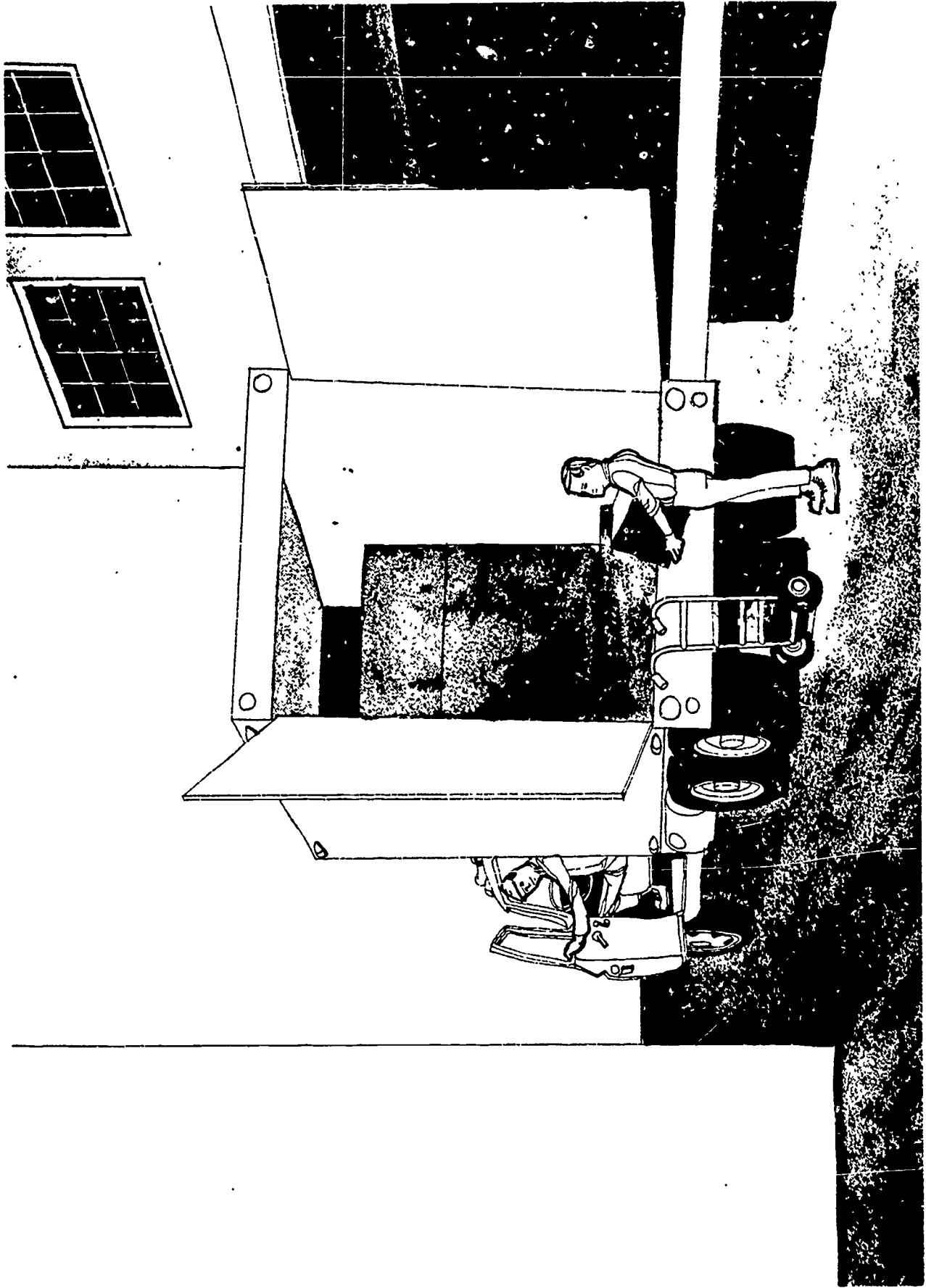
1. provide an index of attitudes towards the following dimensions of work: tasks, tools, equipment, working environment, and interpersonal relationships representative of select occupations in which pupils not completing college are likely to obtain employment,
2. provide information that can be classified and validated in ways that will help identify the particular attitudes of individuals and groups,
3. provide counselors and educators with information that can be related to pupils self-concepts, needs, and occupational choices.

The instrument consists of 10 drawings portraying five major dimensions of work: acts, tools and/or equipment, materials, working environments, and interpersonal relationships. Occupations portrayed are:

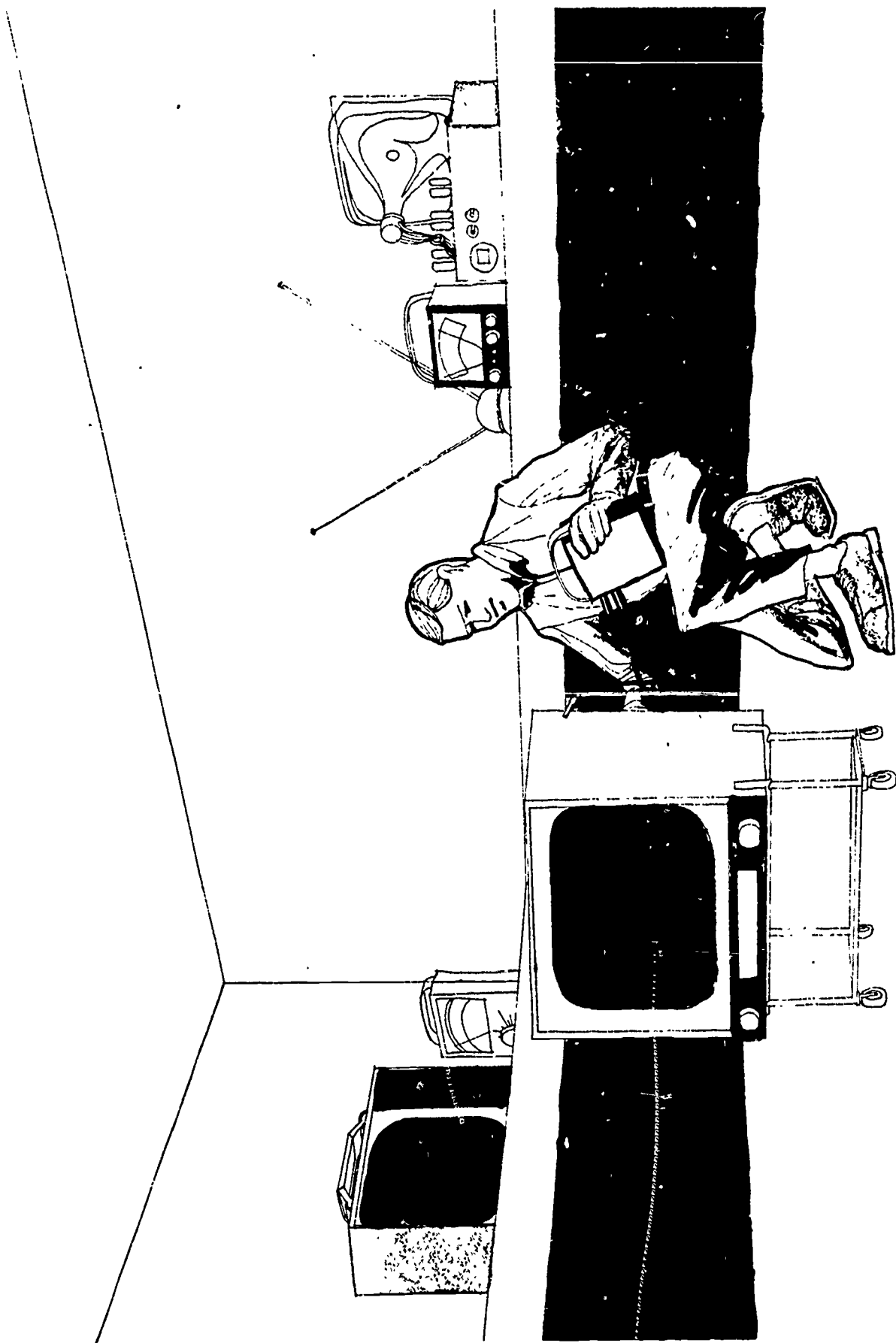
Distribution	Landscape
Carpentry	Traffic
Electrical	Janitorial Work
Store Clerk	Service Station
Farm Work	Heavy Construction

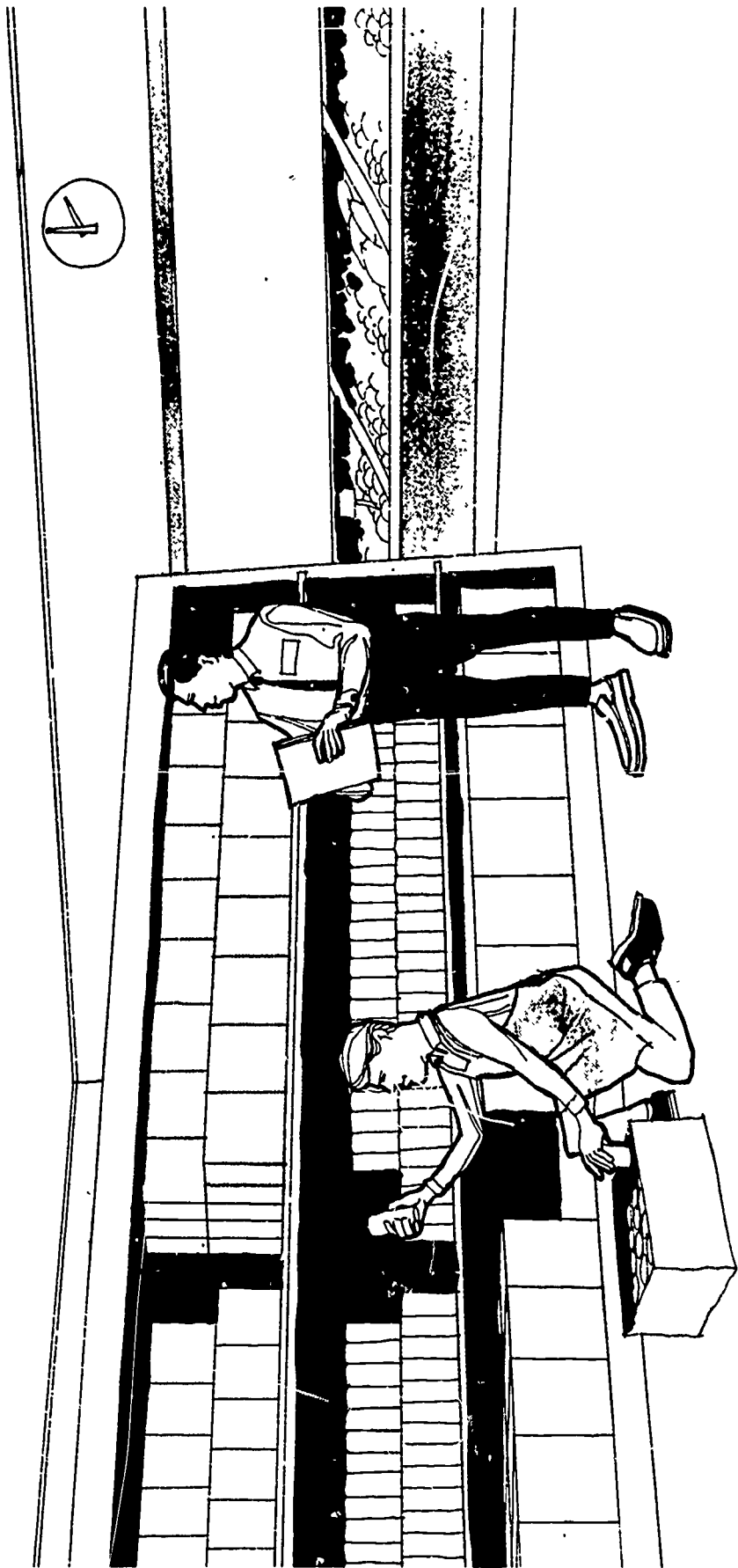
A blank card is also utilized to allow the subject to suggest an occupation which he is interested in, and then to respond to the imagined occupation as he has to the previous cards.

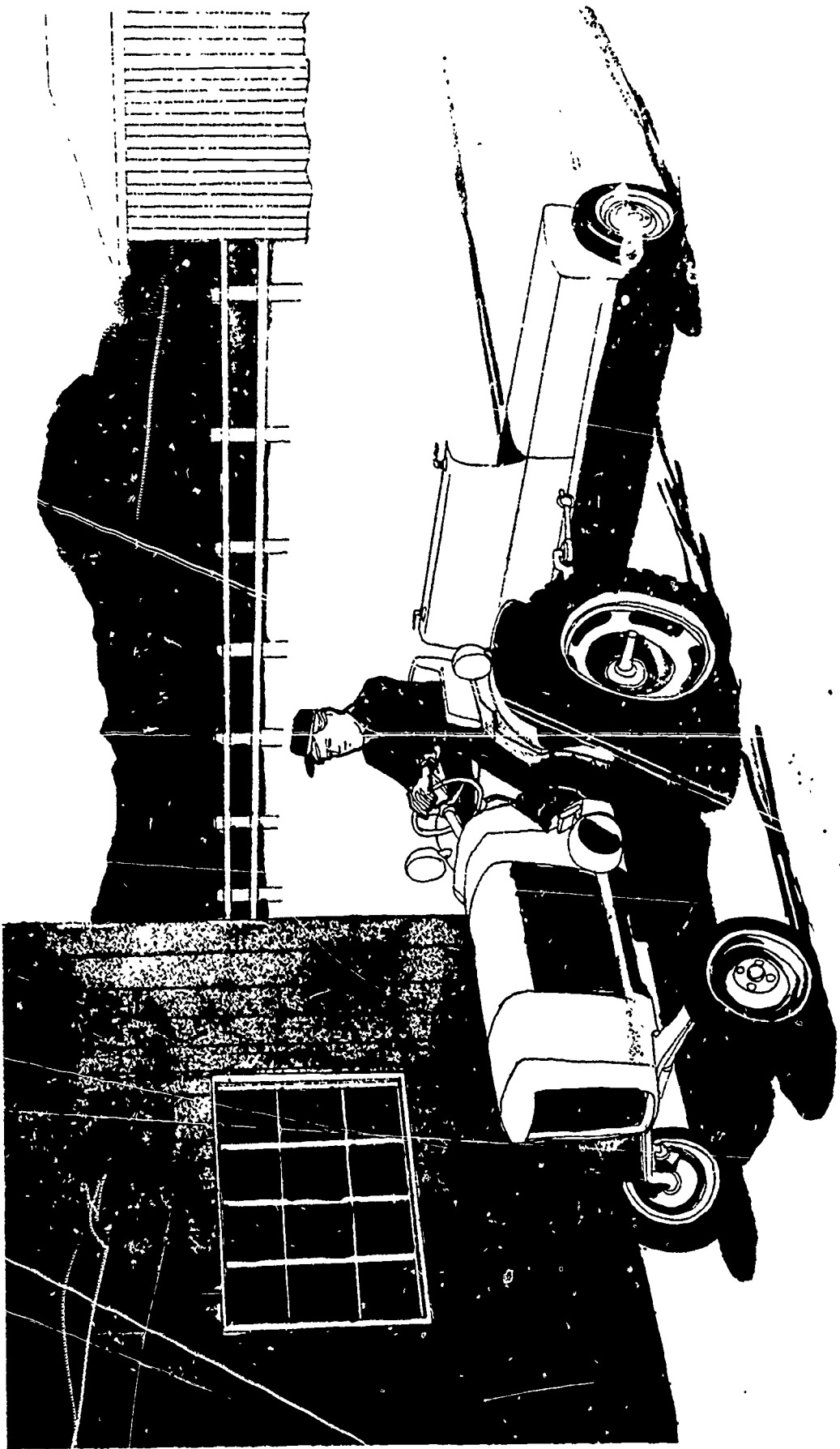
The Drawings

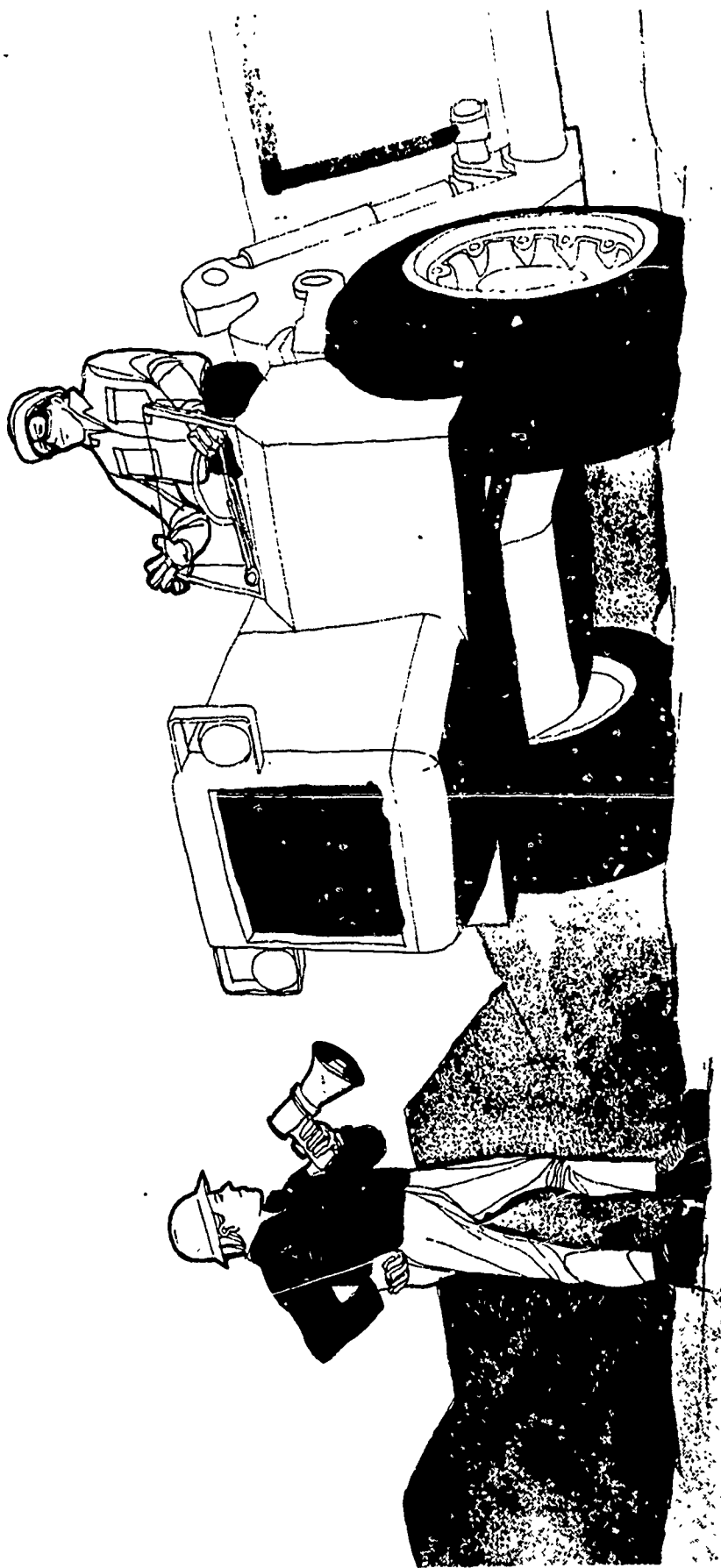




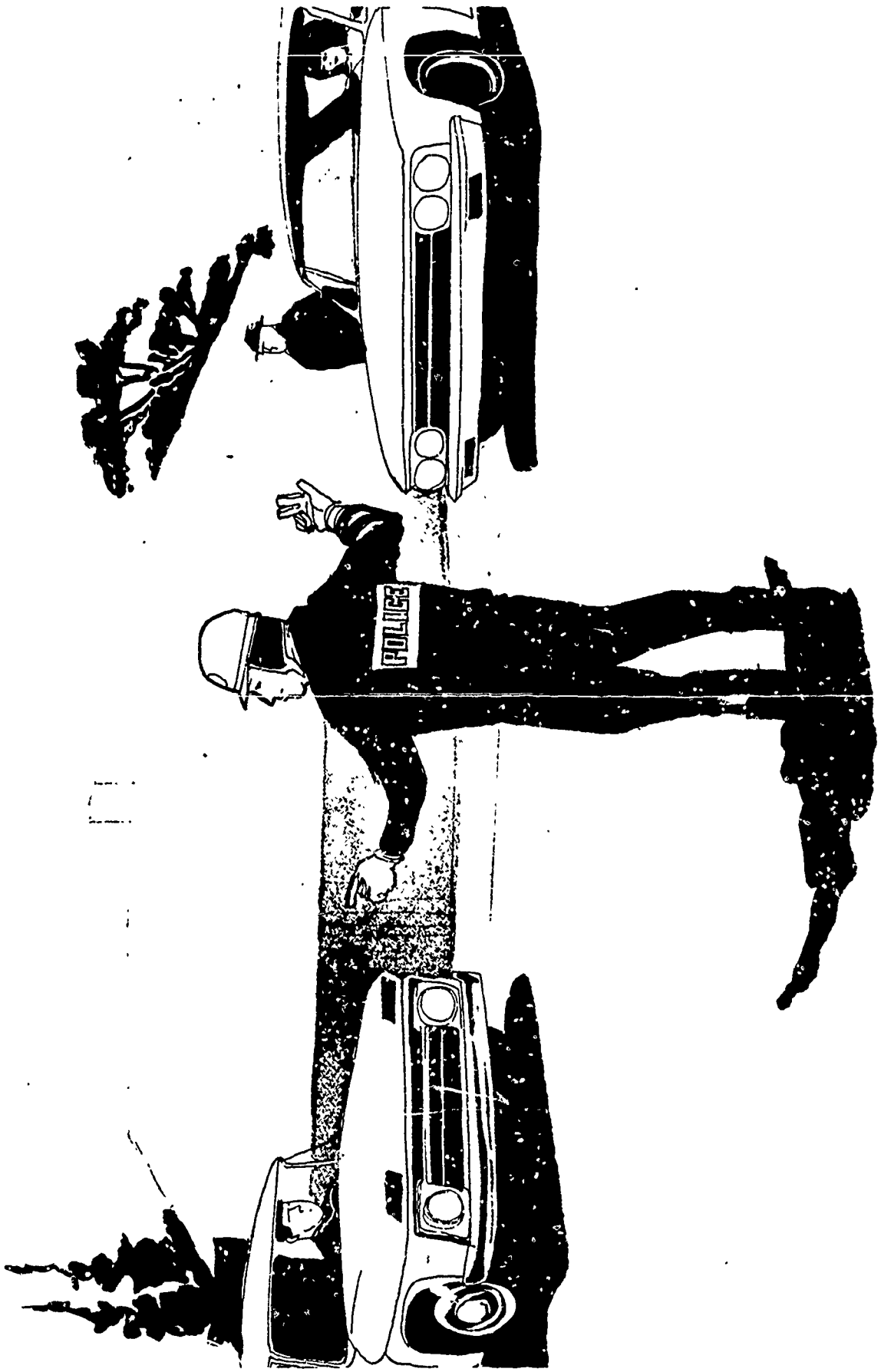


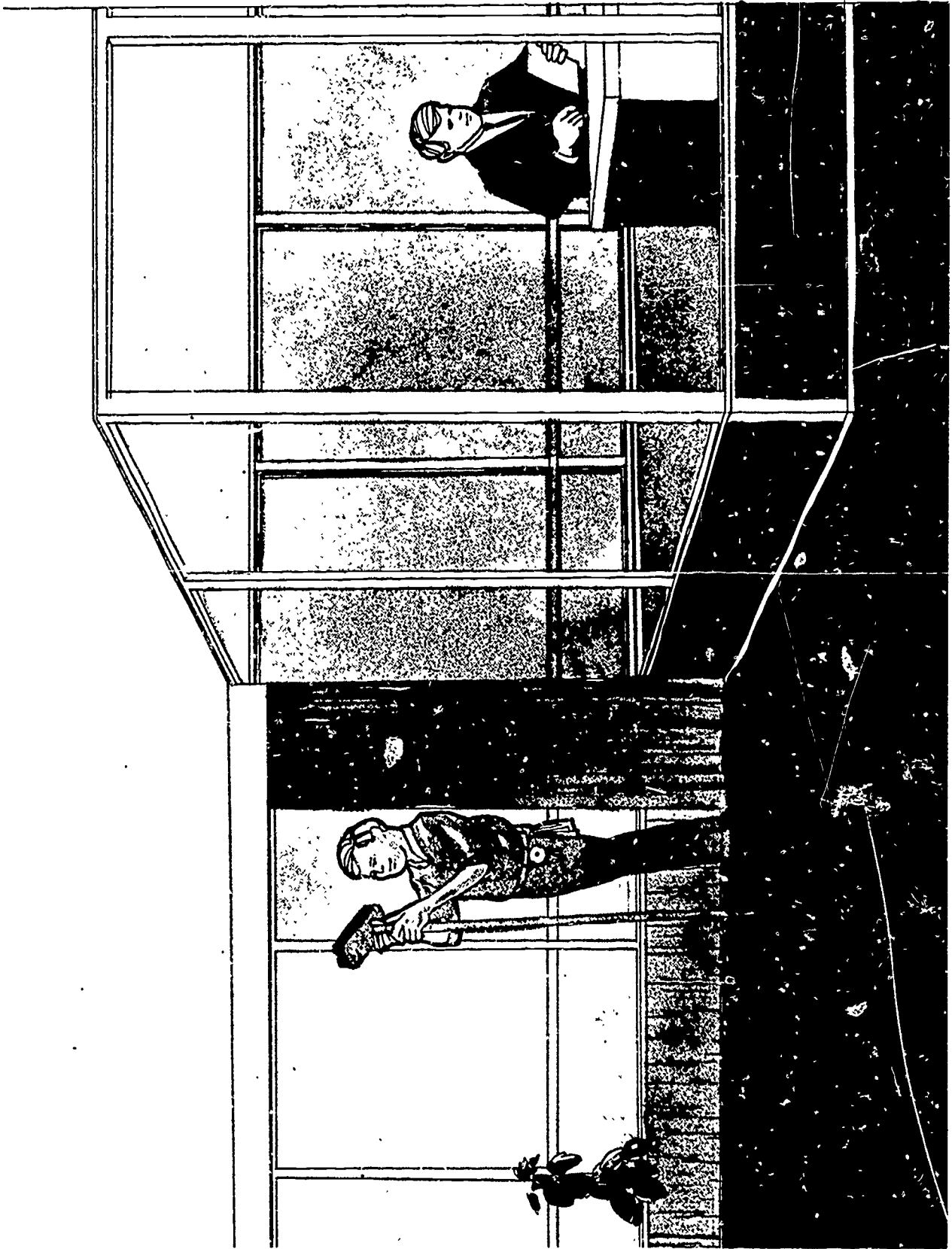


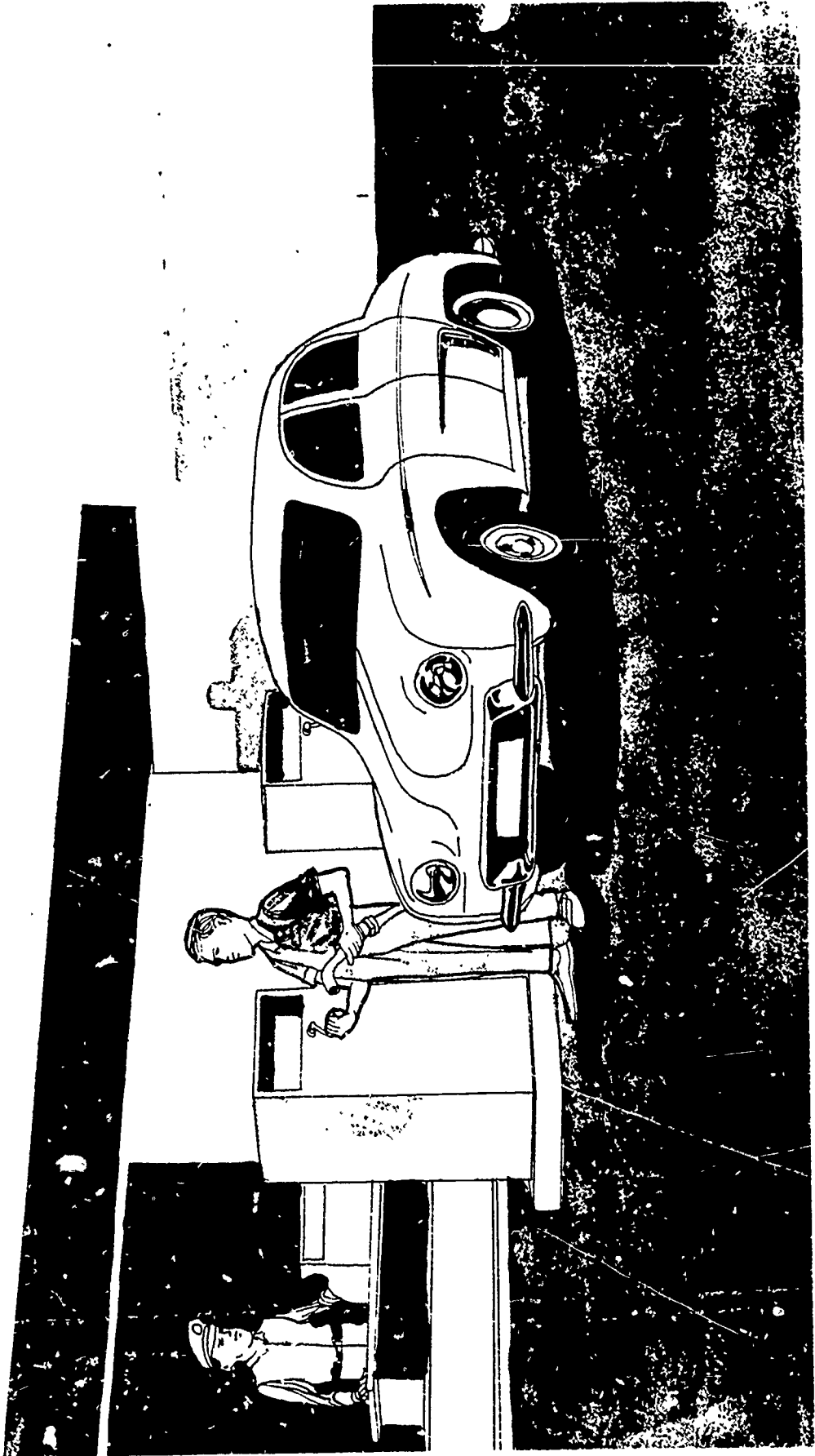












Interviewers use the drawings to evoke pupils responses which indicate their impressions about:

How the persons in the drawings came to be in the portrayed situations.

How the persons pictured feel about the situations they are in.

What the pupils think the future holds for the persons pictured.

It is hypothesized that this technique will provide means of assessing the following attitudes as they relate to occupational choice and work:

1. Attitudes toward various types of work as means of self-actualization.
2. Attitudes indicative of need satisfactions likely to be derived from various occupations...security, prestige, achievement, income, enjoyment.
3. Attitudes toward types of tasks and interpersonal relationships involved in some major types of work.

Interview Procedure

The interviewer shows each of the drawings to subjects and asks them to respond with their impressions about:

1. How the persons in the drawings came to be in the portrayed situations?
2. How the persons pictured feel about the situations they are in?
3. What the respondent thinks the future holds for the person pictured?

Instructions for Interviewers

Interview procedures and environment should maximize opportunities for respondents to make free and undistorted responses. The interviewer's objective is to evoke responses that accurately indicate subject's attitudes toward work situations. The interviewer should not volunteer information

about the work portrayed by the drawings. Questions as to what the test will elicit should not be answered by the examiner. If a subject requests information the interviewer should say, "Let's talk about that after you have had a chance to say what these pictures mean to you. But right now it's your ideas that are important." All questions should be handled in a non-leading manner. For example, if a subject asks,

"Am I supposed to use my imagination?"

"Do whatever you like," or just "Tell me about whatever the picture brings to your mind."

During interviews, subjects' responses are influenced by the behavior of interviewers and by surroundings. The freedom and accuracy with which interviewees respond to clues presented in forms of statements, questions or objects are affected by their perceptions of the interviewer's intentions and good will.

To maximize free response, interviewers should utilize the following procedures and arrangements.

The interviewer should work as unobtrusively as possible. He should avoid acts or comments that interfere with the subject's freedom to respond as he feels.

PHYSICAL ARRANGEMENTS

The Room

The room should be free of distraction, especially noise.

Interruptions during testing will adversely affect the subject's performance. Arrangements should be made to assure uninterrupted completion of the interview.

Seating

The subject should sit at a desk or table beside the examiner. His chair should be comfortable, he should be able to rest his arms on the desk. The examiner should be close enough to observe the subject's facial expressions and also the card.

Lighting

Lighting should be glare-free and shadow-free. The subject should be able to see the drawing clearly.

Arrangement of Interview Materials and Equipment

The following materials should be ready for use when the interviewee enters the room. Arranging materials after the subject arrives may distract him.

The ten drawings and the blank card should be arranged in order, face down, ready for use. The drawings should be presented in order, beginning with number 1.

Paper for recording responses should be on the desk ready for unobtrusive use or (recording equipment ready for use). The interviewer should have a stop watch ready for use.

INTERVIEW PROCEDURES

Facilitating Response

If a subject makes no response to a drawing or makes less than two responses (tentatively), the examiner should say "Look at it a bit longer", or "Give yourself plenty of opportunity." Two minutes is considered the minimum time a subject holds a card before permitting a rejection.

Adequate Response

After a subject has given two or more responses to a card and has indicated response completion, the response may be considered adequate. However, the interviewer should not terminate response if the subject makes only a brief response. The examiner should say, "Take more time if you wish."

Under no circumstances may the subject be aided by the examiner by any suggestions relating directly to card

content. The examiner should reply to questions with a comment like the following: "Just tell me what you think."

Termination of Response to Each Card

Approximately five minutes of response to any one drawing should be sufficient unless the interviewer feels more responses are useful. At that point, the interviewer can say, "Thank you. That's fine. Now, let's see what you think about the next picture."

Transition to Next Card

After the first card, nothing is said about card turning. When the subject finishes response to one card, he gives it to the examiner who hands him the next card. If the subject asks, "May I turn the card now?", the examiner may simply nod his head or inform the subject by saying, "It is all right to turn the card if you want." The subject then gives the card to the examiner and is presented with a new card.

Greeting Subjects

The subject should be in a relaxed state that maximizes free response. He should be met in a friendly warm manner.

The interviewer should greet the subject and thank him for coming.

Conduct of Interview

Then the interviewer should say, "We are trying to make the subjects you study fit your interests. You can help us do that. I'm going to show you ten pictures of people doing different kinds of work. You can help us by telling us exactly what you think each picture tells about the people you see work."

"Take as much time as you want. We do not need to hurry."

"Now, let's look at these pictures. You tell me whatever comes to your mind about (the people in) each picture."

Give the subject card number 1 and ask, "Could you tell your feelings about how the persons came to be in that situation?"

After the examiner is fully satisfied that the subject has completed his response to the first question the examiner asks the second question.

"Now, how do the persons feel about being in this particular situation?"

After completion of the response, the examiner asks the third question.

"Now, what do the persons think the future holds for them?"

After the subject has completed his response to the first card, the examiner hands the subject the second card. The examiner repeats the above procedure. At this point the subject should be acquainted with the task and proceed on his own accord. If the subject fails to respond to any one of the initial impression instructions, the interviewer may repeat the questions.

After all ten pictures have been presented, the subject is given the following instructions for the Blank Card.
Say:

"Think of some picture of work you would like to be doing and tell me a story about it."

Indication of Card Preference

For an indication of preference for the work signified by stimulus cards, ask each subject to arrange in order the eleven drawings (including the Blank Card). From the one liked best through the one liked least. Say:

"Now you have seen all the pictures. Would you arrange all of the cards so that the one that shows the kind of work you like best comes first and the work you like least comes last."

If the subjects ask, "The Blank Card too?", simply say, "In any way you like."

RECORDING RESPONSES

Responses are to be recorded word for word. Subjects are likely to be apprehensive about having responses recorded. The examiner should reassure him by saying, "It is impossible to remember everything that you say; and, since I want to remember everything you have said, I'd like to write it all down."

The interviewer will record the subject's impressions of the following:

1. How the persons in the drawings came to be in the portrayed situations,
2. How the persons pictured feel about the situations they are in, and
3. What the persons think the future holds for the persons pictured.

A two-column page will be useful for recording responses. The left-hand side for recording the Free Response and right-hand side for the follow-up impressions.

Leave space between responses. Later recording of impressions will require more space than the response itself.

The responses are to be numbered with arabic numerals beginning with 1. In this way the total number of responses for each card and for all eleven cards may be easily examined. The first response for card one should be recorded as 1:01, the second response 1:02. The first response for card five as another example should be recorded as 5:01 and 6:10.

Responses should be recorded as unobtrusively as possible to avoid distracting interviewees. Follow-up notes can be written after the interview has been completed. Recording should be kept as inconspicuous as possible. The examiner should make note of all unusual nonverbal behavior that may affect test behavior during the response phase.

Time Notations

Three kinds of time notations are to be made.

1. Reaction Time: The time between the presentation of the card and the subject's first response to it.
2. Total Response Time: The length of time taken to complete the total test performance proper.
3. Total Response Time Per Card: The time is noted when the first card is presented to the subject, (1:00). As the subject gives his first response to card one, the time is recorded, (1:01-10). Time is recorded when the response portion occurs. For example, the subject may say, "Well.....," (and then pause for several seconds before continuing). Time is recorded at the point when the actual response content is produced. Time is recorded when the subject has finished with the card. As the subject finishes, the examiner hands the subject the next card. Time is so recorded for each card in this manner. Intervening delay is of significance as an index to interference with the subject's ability to state his associations.

Subjects Interviewed

The technique has been used to interview 88 Job Corps Enrollees of whom 47 were Negro and 41 were Caucasian. A total of 91 pupils enrolled in the ninth grade of an inner-city school (Tacoma, Washington) were also interviewed. Of these, 44 were Negro and 47 were Caucasian.

Responses were interpreted in contexts of specific and general attitudes that influence the occupational and educational motivations, preferences, aversions, choices, plans and performances of individuals and groups. Results were also interpreted in terms of subjects' maturation and self-concepts.

Long-range Plans for Technique Validation

1. A random sample of pupils with various socio-economic backgrounds will be given extensive depth

interviews for the purpose of obtaining validating data and formulation of validating criteria. Interview data will be analyzed for the purpose of developing attitudinal patterns, scoring criteria, and profiles.

2. Two years later when pupils are employed, another sample will then be utilized for the purpose of follow-up and possible prediction. This will include interviews with the sample, their employers, and their fellow workers. The follow-up will also provide data for validation, reliability checks, and prediction of attitudes toward various types of work and satisfactions likely to be derived.

RESULTS

Results indicate that use of the projective technique does yield evidence of subjects' attitudes toward tasks, tools, materials, environments and interpersonal relationships associated with work in occupations symbolized by the drawings. That evidence indicates the present nature of subjects' occupational goals and ways those goals are influenced by socio-economic status and by felt needs for immediate and deferred economic and psychological security.

Data also indicate that the occupational interests of selected groups of subjects interviewed were only slightly affected by their perceptions of parental feelings. Such influences were negative.

Practically all subjects aspired to occupational levels higher than the occupations of their parents.

Attitudes indicative of long-range occupational goals appeared to be of only minor concern for most subjects. Most subjects seemed to view work largely from a basic need level--food, shelter, clothing, etc.--with relatively little concern for satisfying higher needs. Some typical responses were: "A job is important. Money is important". Few indicated a concern for the nature of work they might do or for opportunities for advancement.

Respondents indicated a generally high level of concern for security and a relatively low level of concern for prestige. Felt needs for achievement were also generally low.

Most subjects indicated a general concern for immediate need gratification. Examples of such responses were "I want money to spend", "I want a car", "I want money for clothes", "I want a job so I can get married".

Few subjects expressed concern about abilities and aptitudes necessary for various jobs. This suggests that more knowledge of occupations and one's abilities and aptitudes are necessary for adequate occupational choice making decisions.

Responses indicate that only those individuals with higher levels of education and occupational aspiration were concerned about interpersonal relationships associated with various types of work.

Subjects identified most with the unskilled workers portrayed on the cards. They expressed no hostility toward authority figures portrayed in the drawings.

Responses suggested slight concern for, or knowledge of, tools. Responses indicated considerable concern for, but slight understanding of, tasks portrayed by the cards. Few subjects expressed interest in equipment. Most subjects expressed preference for outside work. Such preferences seemed to be influenced by the subject's age and educational level.

Results indicate a generally slight knowledge of tools and tasks associated with various occupations, and poor comprehension of abilities and aptitudes required for effective work. Evidence of the general lack of parental models, low levels of aspiration, and need for immediate need gratification indicate urgent instructional and counseling needs.

Responses of many subjects suggest past failures, low self-concepts, defeatist attitudes, and a lack of opportunity. Such responses suggest a need for more information, success experiences, improvement of the self-concepts.

Responses also indicate a general need to provide knowledge necessary for an attitudinal base. The population interviewed generally needs information concerning who can provide facts about occupational opportunities and requirements as they relate to their personal interests and abilities.

In general, subjects did not perceive themselves as able to succeed, and few had realistically appraised their abilities, aptitudes or educational plans.

RECOMMENDATIONS FOR FURTHER DEVELOPMENT OF TECHNIQUE

Present methods of recording and interpreting responses are probably too complicated for the average counselor. They should be simplified. Likewise, minimal training for use of technique appears necessary.

Feedback of information to the subjects used in the initial research is necessary as a means of checking and validating responses.

There is a need to develop additional cards portraying other occupations, particularly those commonly pursued by women and some professions. Not all occupations need be covered but a somewhat broader range of stimuli should be provided for subjects, especially if the technique is to be useful for those likely to engage in professional occupations.

No modifications seems necessary at this time in terms of interview procedures, although some consideration should be given developing the technique for group use in which case changes in administration would be necessary.

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