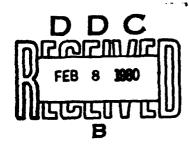


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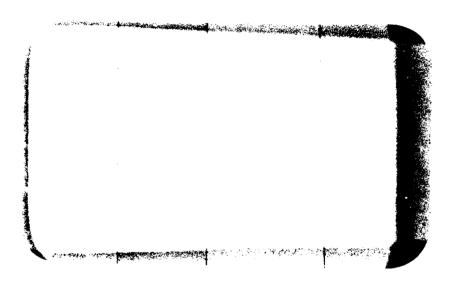
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Staff Paper

MENTAL REJECTS: THE PROBLEM, PAST HISTORY AND SOME JUSTIFICATIONS FOR A RESEARCH PROGRAM.

DHILTON M. Bialek
SEPTEMBER 1964

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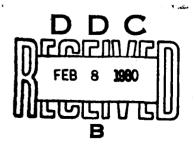
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September 1964

HumRRO Division No. 3 (Recruit Training)

The George Washington University HUMAN RESOURCES RESEARCH OFFICE operating under contract with THE DEPARTMENT OF THE ARMY



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PREFACE

The material contained in this paper is being made available as part of the rationale of use in the study of marginal personnel.

This paper was prepared as part of Work Unit CENTER of the Human Resources Research Office. The general purpose of the Work Unit was to gain some insight into the nature and problems of men who have been called marginal or without the necessary aptitude to assimilate training in even the most fundamental military skills. For further information on this area of research, the reader is referred to Human Technical Report 66-2, A Study of Category IV Personnel in Basic Training by S. James Goffard, Morris Showel and Hilton M. Bialek, April 1966.

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INTRODUCTION

"One-third of all young men in the nation turning 18 would be found unqualified if they were to be examined for induction into the Armed Forces. Of these, about one-half would be rejected for medical reasons. The remainder would fail through inability to qualify on the mental test." In cold numbers, this means that last year, approximately 235,000 young men turning 18 were judged as not even being able to learn the very basic military skills.* If these people represented the mentally deficient the congenitally or organically ill, then one could do little but express regret for their plight. But, it has become abundantly clear that the overwhelming majority of the group, "appear to be victims of inadequate education and insufficient health services. a major proportion of these young men are the products of poverty. They have inherited their situation from their parents, and unless the cycle is broken, they will almost surely transmit it to their children."

The Department of Defense and in turn the Department of the Army has seen fit to respond to the economic, social, and human problem by a proposed program designed to provide special training and education for those of the designated population who would accept it. The purpose of this paper is to cite justifications for a long-range program (parallel to, but independent of, the operational program) of research designed to explore the problems of educating and training this special population.

Some statistics will help define the target group. Despite the fact that they all failed the AFQT (Armed Forces Qualification Test) they

^{*}Technically, they failed to reach the 30th centile on the AFQT and could not score at least a 90 on three of the eleven AQB scales.

average 9.5 years of formal education. Four out of every five are school dropouts, and of these dropouts 40% cited financial decisions as the main reason for dropping out. Slightly over half of the group are non-white and a disproportionate number come from the southeastern part of the country. Their unemployment rate is four times higher than the total population in the same age group (20-24 years); of those who do work, 73% hold unskilled or semiskilled jobs as compared to 47% of the general population of that age. Half the families from which these young men come earned less than \$4,000 per year. Over half of the fathers of these families had less than eight years of formal education and 20% of the fathers are unemployed -- a figure far above the national average. From a motivational standpoint, the following data is especially significant: Approximately 80-85% of a sample of men who had failed the AFQT indicated a desire for additional basic education, a slightly higher percent indicated a desire for job training, and over 90% expressed a desire for and interest in a job training program combined with a basic education program.*

Here then is the challenge—a sizable group of young men who have had unrewarding, perhaps meaningless, educational experiences but might have the capacity to be contributing, constructive members of the society are destined for the cycle of unemployment, poverty, marginal existence, deprived offspring. Is it possible to assist these men to become productive, self-sufficient, and self-respectful?

Can a voluntary program of job training and education be developed which would utilize the manpower potential of these young men?

^{*}The statistics cited above are from the U. S. Department of Labor.

Our major thesis is that past efforts and current educational and vocational research do not provide clear recommendations for establishing a program that would materially and permanently assist these men. Whether the objective is preparation for specific military tasks, training, or general educational programs, we will attempt to show that past efforts to deal with this special population have not been particularly successful. To add to this, we will show that current educational research is marked by both a paucity of references to this group and an overabundance of problems requiring long-term research efforts.

There are a comparable number of youths who are likewise unable to meet the qualifications for military service but in their case, the reasons are in the main medical and physical. This population is equally in need of attention, but the research and programatic problems of this group are sufficiently different from the mental rejects as to suggest separate consideration. Therefore, in this report we will deal only with the latter group, the mental rejects, but in doing so we do not presume the former group to be less of a social, economic, or humanitarian problem.

Some Sociological and Background Characteristics of the Mental Reject Population.

As has been noted earlier, persons rejected for military duty because of their inability to meet minimum mental standards come from the most depressed sectors of our society. A recent survey of this group describes them as "the children of poverty." Since the sociological and psychological characteristics of these people will have an important bearing on the effectiveness of any program for their training and/or utilization,

the characteristics of this population will be briefly described. It should be pointed out that what will be described does not apply to each and every rejectee. There will be exceptions. Rather, what follows is a description of the rejectees as a group and a description of the poverty stricken groups in our society as compared to the more affluent groups.

Poverty exacts its price in low income families. Members of such families are ill more frequently and their illnesses last longer. They more often have physical disabilities which could be corrected but are not. Medical attention is expensive. Factors such as these impair the child's effectiveness in the school and the parent's effectiveness on the job. It is a vicious circle.

Poverty also exacts its toll with regard to respect for law and order. The frustration of poverty amidst plenty coupled with relatively lax law enforcement and a slum code which often sanctions stealing, vandalism, violence, and disrespect for constituted legal authority results in a higher than average crime rate in poverty stricken areas. Persons living within these areas are more likely to have engaged in anti-social acts, to have been apprehended by the police, to have been convicted in a court of law, to have a prison record, and to have been denied probation or parole. The services of attorneys are also expensive.

Perhaps more germaine to the problems of mental rejectees is the extent to which poverty stricken families prepare their children for entrance into the public school system. The facts here are that poverty stricken families are not only economically deprived, but also culturally narrow and limited in precisely those areas which contribute to success in the school and the society at large, both predominantly characterized by middle class attitudes and values. C. C. North has gone so far as to

state that low status produces a kind of mental isolation which operates to "limit the sources of information, to retard the development of efficiency in judgment and reasoning abilities, and to confine the attention to the more trivial interests of life. " Compared to people of the upper social classes, members of the lowest social class are less likely to read, or even have books or magazines in the home. They are less likely to have informal social contacts with friends and less likely to be members of. or participate in, formal social groups such as churches, fraternal, patriotic, or service organizations. They are less likely to have traveled or have contacts outside their immediate neighborhood. They are more likely to confine their associations with their "own kind." The content of their conversations, reading, listening, and viewing are more likely to be limited and narrow. The data here show that lower status people are less interested in "serious" subjects. There is greater interest in fiction, comedy and sports, and less interest in public affairs. They are less likely to be informed about current events, more likely to answer as "I don't know" or "no opinions" in reply to opinion polls, and less likely to vote in elections.

The attitudes of low income people towards "getting ahead," the likelihood of getting ahead, and the role of the school are particularly important here. There is evidence to indicate that low income people have relatively modest ambitions as far as the occupations they would like to enter and the yearly income they would like to receive. Undoubtedly, this attitude reflects reality for these people for there is less liklihood that they can, in fact, secure higher status occupations and earn larger incomes. There also is more direct evidence in this regard. When asked, "Do you think that today any young man with thrift, ability, and ambition has the

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opportunity to rise in the world, own his own home, and earn \$5,000 a year?," 53% of the prosperous indicated that such an asporation was realistic. Among the poor, only 30% agreed that the aspiration was realistic. Education is the primary means by which persons can advance to better status jobs and larger incomes. One might expect that low income people give less recognition to the value of education. Evidence supports this contention. Again, this may reflect the fact that these people are less likely to go to college.

The picture one gets of the psychological climate within poverty stricken homes is not only one of cultural deprivation, but also lack of interest and indifference towards the larger world, lack of self-confidence, and lack of motivation. The child reared in such an environmer is severely handicapped when he enters the public school system for the groundwork necessary for success in the school (as well as the society at large) has not been laid. His ability to function effectively in school is impaired because of his lack of exposure to and experience with ideas and objects which children from upper income groups receive as a matter of course. He may have never heard a serious conversation on a significant topic in his home. He may never have held a pencil or paint brush in his hand, had a story read to him, or visited a library or museum. Even the vocabulary to which he has been exposed in his family has been restricted. (The current emphasis on nursery schools for pre-school children from economically, and presumably culturally, deprived families is recognition that steps must be taken early to supplement the home environment in order to increase the child's chance of success in the public school system.) His effectiveness in school is further impaired because of his way of looking at the world and at himself -- ways which he has acquired from his

family--lack of interest in the larger world, apathy and indifference, lack of self-confidence, and lack of ambition or regard for the school.

Not only is the economically deprived and culturally limited child often ill equipped to enter the public school, but too often the school itself fails to meet its responsibilities. Our traditional neighborhood schools reflect the community in which they are situated. Economically deprived children are reared in poverty stricken neighborhoods, and the schools situated in such neighborhoods reflect this poverty. They are usually the older schools with obsolete facilities and equipment, limited curriculum, and large classes. Because of the difficulty in working with culturally limited children from poverty stricken homes, teachers tend to avoid assignments to such schools, and when assigned, attempt to be reassigned as soon as possible. The result often is that the more inexperienced teachers serve in these school which are most in need of a dedicated, well-trained, and experienced faculty.

Another factor which impairs the school's ability to develop the child is the gap between the values held by the school (teachers, counselors, administrators) and those held by the students, their families, and friends. For the most part, the faculty comes out of a middle class background. This class places a high value on such things as order, neatness, punctuality, polite language, and "getting ahead." Often, these are not the values held by the students who come from the lower class. The result is a lack of rapport between teacher and student. Such problems are accentuated when it is realized that to some extent poverty has a culture all of its own. The words the teachers use, the pictures and text in books, all may be quite foreign and incomprehensible to a child coming from a poor family. The world he is experiencing in the home and in his neighborhood

may not be that which the school is trying to convey to him in the classroom. The result too frequently is failure and frustration for such children.

Normally, one expects the home to supplement and aid the school in its work. Such support is too often lacking in lower class homes. For one, the values held by lower class adults are not always those held by the school. Moreover, even if the family was desirous of supporting the school in its work, it frequently is unable to do so due to the lack of education of the parents themselves, the lack of space or privacy, and lack of time. The child essentially is on his own.

All of the factors described above make the school a frustrating and unrewarding experience for children from poverty stricken families. He does not do well in school and the result often is disorder in the classroom and truancy. The child's regard for the school and education, low before he entered the school, probably decreases as a result of his experiences in the school. When this is coupled with the attraction of jobs outside the school, the need to provide financial assistance to the family, and lack of parental encouragement to remain in the school, it is little wonder that four out of five of the rejectees were school dropouts. About half left school before the age of 17, and only about 20% had graduated from high school.

The effect of such a history of frustration and deprivation is dramatically revealed in a retraining program recently conducted in Norfolk, Virginia under the auspices of the Manpower Development and Training Act. The program was designed to make literate craftsmen out of men who were illiterate, unemployed, and whose only marketable assets were their muscles. While one might have expected that such men would have been eager

to volunteer for a retraining program and have been motivated to go through the program to its completion, this was not the case. An extensive recruiting effort was necessary to attract students, who being pessimistic and defeatist in their outlook, were either too shy or sullen to take advantage of the program. Moreover, once in the program, financial assistance, counseling, and other social welfare activities had to be undertaken to solve the student's personal and family problems—problems which if ignored, threatened to result in a high dropout rate. While the great majority of students successfully completed the program and became gainfully employed, the Norfolk experience points out the multitude of problems facing any effort to help the economically and culturally deprived.

We have tried in this section to describe the socic-economic background from which the rejectees come and the way of looking at the world which seems to prevail among persons of this background. Clearly the data has implications for the testing, training, and utilization of people of marginal mental ability.

- (1) While efforts have been made to develop sulture-free tests of mental ability, it is likely that the tests used to categorize a person as a mental rejectee have a middle class culture bias. As such, persons coming from middle class backgrounds would have a decided advantage, those coming from lower class backgrounds a disadvantage. The innate mental ability of the rejectees may be higher than is indicated by the tests.
- (2) The rejectee has been raised in a culturally deprived environment in the sense that he has been exposed to only a narrow segment of that which is encountered by middle class people. The effect of such deprivation frequently is a lack of intellectual stimulation. The result is a lessening in ability to conceptualize and to manipulate

symbols for thought. The ability to conceptualize and to manipulate concepts and symbols are prerequisites for success on conventional tests and in school. The rejectees' limitations in this regard must be considered in developing a remedial training program.

- (3) Not only has the rejectee been exposed only to a relatively narrow segment of the larger culture, but to varying degrees he has been exposed to a culture different from that experienced by middle class people—that which is recognized and valued by the school system. Poverty has a culture of its own. He does not value order, neatness, diligence punctuality, respect for property in the same way as is done by persons of the middle class. Many of his ideas and even parts of his vocabulary will be foreign to persons of the middle class, and, of course, the converse will be equally true. Such cultural differences between the rejectees and the rest of society would be more pronounced for individuals coming from relatively isolated communities (Appalachia), foreign immigrants, and for Negroes coming out of the rural south or urban slums. The differences between the rejectees' culture and that of the larger society will have to be recognized and steps taken to bridge the gap.
- (4) A fourth problem confronting any remedial program is the psychology of the deprived persons. They tend to be apathetic, timid, and lacking in motivation to get ahead. They lack confidence in themselves and in their ability to progress. To a great extent their life has been a long series of frustration, not the least being their unhappy and unsuccessful experiences in school. Since they have not succeeded in school, they may feel that the school has failed them. Undoubtedly, this will lower their regard for schools and education, even those specially designed to remedy past deficiencies. These facts have particular

implications for the type of orientation given to rejectees and for techniques used to motivate them to succeed in a special training program.

(5) Special note should be made of the problems facing a special training program when dealing with rejectees who come from racial minorities that have been subject to discrimination—Negroes, Puerto Ricans, American Indians, and Mexican Americans. Since the great bulk of these people come from economically and culturally deprived backgrounds, what has been stated before applies equally well to them. If anything, the problems are emphasized with these people for they have suffered the greatest deprivation. The problems may be accentuated however by the fact that the discrimination has been the result of actions taken by the Caucasian community. The result may be hostility towards a special training program which, inevitably, will be heavily staffed by Caucasians.

Our discussion of the five important areas is not meant to imply that all of them will constitute problems in dealing with each and every rejectee. Rather, these are problems which characterize the economically deprived segments of our society, the group from which the majority of rejectees come. Each rejectee is an individual in his own right. The task is to determine which problems characterize the particular rejectee, and then attempt to deal with these problems. The identification of the five areas then serves to sensitize the researcher, counselor, or teacher to what to look for when dealing with people like the rejectees.

Review of Federal and Military Literacy Programs

Since 1933 there have been several large scale attempts at the basic education of men who, for one reason or another, were not at a sufficiently high level of general functioning to meet the demands of military service

or the civilian job market. The best known of these efforts have been the Civilian Conservation Corps, the Army Literacy Training Program of World War II, the Navy Literacy Program of the same period, and since the war, the Army's program of basic education at Ft. Leonard Wood and the Air Force's Project 1000 at Lackland AFB.

The definitions of the problem of marginal functioning and the goals sought through basic education of these men vary from program to program. Illiteracy, functional illiteracy, educational deprivation, and limited trainability have been the target in various instances. "In most cases, the inability of low-level personnel to perform effectively on tests given at the time of induction, subsequent failure in training programs, and poorer than normal performance of military duties have been in some way connected with an inability to read and write at a grammar school level." The standard of literacy needed to perform most military jobs has been generally set at 4th grade level, but some findings indicate that those with literacy lower than this but above some still lower limit are more trainable than the very bottom group. It was found that from this grouping, men could be selected who would quite adequately fulfill the less demanding military jobs.

Depending on the total manpower needs of the combined services at any one time, it is possible that screening procedures alone could continue to provide for sufficient personnel in most military jobs. The difficulties implicit in such a policy, however, include the probably continued waste of a large number of persons who are evidently in need of educational upgrading, willing to conscientiously apply themselves to getting such training when there is opportunity, and sufficiently intelligent to derive a great deal from it. The report of the President's

Task Force on Manpower Conservation has laid heavy stress on this point. Another potential source of difficulty for the services is the liklihood that the total need for men might increase drastically, resulting in the sudden need for such programs. Having a basic education program in effect would probably facilitate escalation if and when the need arises. The programs undertaken thus far have not proven the necessity or even the desirability of basic education programs in the military from the standpoint of manpower needs alone. It seems reasonable to expect that increased trainability for a large number of draft-age youth would benefit the services, especially during mobilization, and obviously, an effective basic education program will benefit both the individuals concerned and the economy.

In general, past programs have focused on the problem of reading and writing with the expectation that with the acquisition of these most elementary tools of learning the potential learning capacity of the trainee will increase severalfold. Arithmetic training has been offered in every case as well but has been less emphasized than the former skills.

Civilian Conservation Corps: The Civilian Conservation Corps, founded in 1933 and administered for its nine-year existence by the Army, had as one of its provisions a plan for the first large-scale literacy program in the United States. At the time of the program's inception, it was found that most of the facilities, materials, and methods of instruction available were not suitable for the education of adults, since most were specifically designed for the use of children. Perhaps because of the novelty of the program, much of the energies of the educators involved were expended in the development of new materials for teaching reading. According to a report by Nicholas A. Fattu and others reviewing U. S. Army literacy programs and prepared in 1953, the singular change in the approach to CCC literacy training from that employed at the time in the

education of grammar school children, consisted in the development of readers with adult themes.

The operation used to define illiterates for admission to the basic education program in CCC was inability to read a newspaper or write a letter. Individuals who had completed no more than three years of school were included as well. Those CCC enrollees who fitted this category were given compulsory reading and basic arithmetic training, and this instruction was available to those of higher grade too, on a voluntary basis. Little research and evaluation of a scientifically valuable nature was undertaken in connection with the CCC. Approximately 80,000 persons who were formerly illiterate were judged by the administrators of the program to have become literate according to the newspaper-letter definition. It was also widely stated that the program had made significant changes for the better in the resources available for educating the adult illiterate, and in the opinion of Fattu et al., the CCC is generally conceded to have , been a good thing for the country and the persons concerned. Nothing more than this is available on the effectiveness of the program in making these persons more literate and on the subsequent effects of such literacy as was attained on their later adjustment to military or civilian life. As with pioneer programs of this sort, in general, much of the benefit is assumed to have taken place in the absence of empirical evidence one way or another. The CCC continued until the outbreak of World War II, when the United States found itself faced with a very different problem with respect to manpower resources than that of 1933. In summary, what can be said of the CCC is that records and reports of the programs of basic education and their outcomes do not permit any overall estimation of their true worth, but that most experienced educators of the day were apparently convinced of their value.

World War II Literacy Programs:

A. Army - The most extensive and best known attempts at literacy training were those undertaken by the Army and Navy during World War II. The definition of literacy used at that time was reading equal to that of a child completing the 4th grade. The Army and the Navy each had its own method of determining this through General Classification Tests developed for evaluating the general level of functioning of inductees. As early as June 1941, the Army distributed self-instructional materials to improve the reading level of the marginally literate men already in service. By December 1941, special training units were in operation at some Army installations but the development of materials suitable for military instruction of adult illiterates had yet to take place. Improved texts, appearing in August 1942, and in June 1943, remedied this condition to some extent but the methods of instruction employed were still conventional.

Among the special techniques found to be especially useful in the course of the effort were the use of readers with adult themes, particularly on subjects pertaining to daily life in the service; utilization of the trainees' already extensive verbal vocabulary and abilities to make instruction more valuable; separation for different treatment of those who had low non-verbal intelligence scores as well as impaired reading ability, and those who did not have a good command of spoken English—those whose native language was other than English; the use of reading readiness classes to develop interest in reading prior to instruction; and arithmetic preparation classes to eliminate the most elementary errors in thinking about numbers before exposure to fundamental arithmetic operations. The novelty of the Army's approach consisted mainly in the greater integration of the material

to be learned with daily military routines. This was achieved largely through the use of materials with adult-military content. The appeal of comic books was exploited to induce reading, with specially prepared ones geared to the low-level reading of literacy trainees.

The effectiveness of the Army's program has been widely acclaimed. When the Army plan had been under way for about one year, M. A. Seidenfeld, who was active in the program at that time, reported that thousands of otherwise useless men were being made available for service, and that of those linguistically handicapped persons accepted for instruction, about 85% could be made available for assignment. This estimation was based upon the apparent readiness of trainees to fill military jobs at the end of their literacy training, and in the Army's case, no followup on subsequent service records was done. Obviously, the pleasure and pride of the trainees and their families in their newfound prowess was gratifying to all concerned. Similarily, the large number of men processed, over 300,000, represented a substantial increment to our military strength. The absence of research into the actual effectiveness of the training program leaves us with some unanswered questions, however. (1) Were the literacy graduates really comparable to other soldiers on the job? (2) Is it certain that these men would have been unusable without first attaining 4th grade level of reading and arithmetic proficiency? In addition, the usefulness of the program which was found so effective in World War II would probably not carry over to the needs of today's Army. Like the civilian job market, most of the Army's need is for educated and/or trained men, and it is unlikely that those with only 4th grade reading level would be very valuable in any but very small numbers. As we have shown, the population under consideration is probably quite different than that dealt with in World War II. A possible point here is that

education standards have improved since 1941 to the extent that we may be facing a problem of non-functioning more deeply rooted in the personal and social failure of the individuals, families, and communities involved to acquire culture, even where exposure is possible or actual. Thus far, this is only a supposition, but study of the records from World War II programs may make some comparisons possible, at least with respect to the question of whether present-day rejects have been exposed to much more actual education, as measured with some device other than the counting of gross years spent in schools. At any rate, it is clear that the number of years of school attendance is not synonymous with the number of years of education.

B. Navy - The Navy found itself in need of a literacy training program in June of 1943 and had established a working program of 13 weeks training in basic reading, writing, and arithmetic by March 1944. The program was modeled after the Army's, but on a smaller scale. Camp Peary, Virginia was used for the training of white illiterates, while another program for Negroes was established at Great Lakes. Most of the Army's instructional materials had to be revised to make use of Naval themes, but methods of instruction and nature of reading material closely paralleled those used in the Army program. The use of illustrated materials and workbooks, and of Naval-theme readers and comic books especially adapted for poor readers, were novel features of the Navy's effort. As with the Army program, an important advance over the CCC program was the use of duty-time for literacy training. The military programs had gained effectiveness in switching from an after hours to a duty-time basis.

One study was made of the Navy's program which provides a good deal of information and food for speculation. E. P. Thorndike and R. L. Hagen of Columbia University did a follow-up on the careers of a group of Navy

illiterates in April 1953. In comparing three groups of about 1,000 men: (1) illiterates trained at Camp Peary, (2) controls inducted at the same time from the same areas, and (3) marginal individuals from the Navy population as a whole, they found that the illiterate group tended to have less satisfactory records than the others with respect to promotions, proficiency ratings, and number of court-martials, and in some other categories, though not at a significant level. The promotions were affected to some extent by special requirements for entrance to technical schools which led to faster advancement. It was apparent from this study that the upper levels of the illiterate group had better records than the bottom group, though all were below the seemingly "critical" 4th grade level at the time of initial testing. In general, it was thought by the authors that the majority of illiterates were quite useful to the Navy, and that there is sufficient diversity in this group that diagnostic selection and special tutorial program should be used which would identify the more trainable illiterates. One possibility was indicated by the finding that those with greatest retardation, ratio of time spent in school to highest grade completed, were least amenable to basic education.

The wartime efforts of the Army and the Navy appear to have appreciably increased the military usefulness of certain kinds of poorly functioning men. With the exception of the few reservations mentioned above, it can be affirmatively stated that these programs assisted our military effort in World War II to the extent that more men could be put in uniform in some capacity. There are records available which have formed the basis for some follow-up studies along the Thorndike-Hagen model. Most of these findings have been inconclusive, but some of the inadequacies of

these early programs seem evident enough without need for additional research. In general, however, it is questionable whether these wartime programs enabled those enrolled in them to actually hold more complex jobs either in the service or afterward.

C. Ft. Leonard Wood, Missouri - Writing in 1956, S. J. Goffard estimated that 5% to 7% of Army inductees could not read at the 4th grade level, as indicated by scores on the AA-I section of the Army Classification Battery. From the end of World War II until 1953, basic education in the Army was on a compulsory, after-hours basis through Army Basic Education School. The course lasted sixteen weeks or until the minimum level was reached. This set-up was not very successful, and the lack of success led to the establishment in January 1953 of the Basic Education School at Ft. Leonard Wood devoted to duty-time education of these marginal persons. Goffard and his associates designed several studies to evaluate the effectiveness of basic literacy training in reading, writing, and arithmetic, for the equivalent of three full-time weeks. The basic finding was that three weeks of training did not appreciably raise the scores of these men on several measures, including proficiency of the standard proficiency test type, written achievement tests, and measures of troublesomeness and attitudes toward the Army. The negative findings of this study paint a somewhat different picture of basic education than do the reports on the CCC and World War II programs. The fact is that the Leonard Wood studies were by far the most carefully designed and controlled to date.

The extremely short time allotted for basic education would seem to make the above findings dubious, were it not for a similar study by the

Air Force in 1954, where similar results were obtained from a somewhat longer program. The standards for induction in early 1953 were considerably lower than at present because of the Korean War, so that the current rejection rate for draftees, which is usually in the neighborhood of 50% (largely on mental grounds) does not necessarily reflect a large number of men who need to be brought up to 4th grade reading level. At any rate, the Leonard Wood program, even though it makes use of duty time and has the solid backing of high command, suggests that the methods employed, the quantity of resources allocated, or time allotted, or a combination of these factors are severely limiting the Army's efforts at upgrading its less talented personnel. Goffard has suggested that an approach which made wider use of established principles and new research findings on education deficiency diagnosis and the specific problems of educating different sorts of deficient persons would certainly be more valuable than the programs in effect at the time of this writing.

D. Air Force: Project 1000 - This was undertaken primarily as a research effort to determine the feasibility for the Air Force of large scale training of the marginally literate. As in the case of many such studies, the subjects of the studies, so far as is known, were of varying degrees of non-verbal intelligence, trainability, and personal adjustment, but were placed together in an undifferentiated group for training in basic arithmetic, reading, and writing. The added training consisted of 45 hours each of language and arithmetic with additional military subjects training, altogether making for a twelve-week basic training cycle as opposed to the standard six. The trainees were evaluated at the end of their training, and again in a follow-up study some eight months later. It was found that marginally functioning men who received basic education as described were no better off than those who had gotten the

standard basic training cycle. This corroborates the negative result of the work at Ft. Leonard Wood. Apparently, the addition of elementary subjects training did little or nothing to increase the usefulness of these marginal persons to the Air Force. The Air Force also attempted, on a smaller scale, to raise the general aptitude and literacy level of marginal trainees by means of a tutoring program. No significant results were obtained.

Of the military efforts since the war, we can say that superior research design and availability of information have tended to lend scientifically valid support to the hypothesis that, for one reason or another, the instruction of military personnel in basic elementary school subjects using standard classroom, tutoring, and textbook approaches, has failed. The possible reasons for this are numerous, but some of the more significant areas for further inquiry which have been suggested are: (1) The materials used--changing the content of reading materials alone is not enough; the feasibility of using programmed materials with marginal persons is discussed in another section of this paper. (2) Inadequate diagnostic procedures -- ample evidence is presented in subsequent sections showing that persons are educationally or intellectually deficient for a wide range of reasons and combinations thereof. Remedial action has to be geared to specific causation. (3) The need for a broader approach than is customarily found in the school setting. There exists a large number of persons who have had plenty of exposure to school, yet have not even been able to acquire the basic tools which will enable them to learn.

New approaches, fresh thoughts with a good deal of careful research are imperative.

Conclusion

mainly to indicate that we are failing to educate a substantial portion of our school-age people, and that additional time spent in remedial class-rooms may not be the solution to this problem. The paucity of positive findings seems to indicate the need for much imaginative new thinking and innovation, but the barrenness of this first aspect is softened somewhat by the large number of possibilities raised, primarily as afterthoughts, by the predominantly negative findings.

Evidence to date indicates that the proposed STEP program is almost certain to fail unless quite different diagnostic, selection, and training content and methods are employed than have been employed in past programs. To adequately test such a program, current sophistication and study of past failures must be combined so that sound answers can be obtained as to the feasibility of such programs and ways, if any, in which this segment of the male population can be utilized.

Before concluding this section on military literacy programs we should point out that there are at least three advantages in conducting a remedial training program for mental rejectees in a military setting rather than a conventional civilian setting. While not insuring the success of such a program, they would seem to increase the chance of success. Two of these advantages inherent in the nature of our military system: (1) Comparatively sepaking, it is an "open" society; positions of responsibility and authority within it are achieved rather than ascribed. (2) Again, relatively spacking, it has more control over the "whole" man

By an "open" society, we mean one in which people are able to advance on the basis of their merit and ability. Positions of authority, reaponsibility, and high status must be, and can be earned or achieved by those demonstrating the required ability. Wealth, family status, "who you know" are relatively unimportant as far as deciding how high a person can rise in the enlisted military hierarchy. This "openness" is particularly evident with regard to the advancement opportunities the Army offers to members of racial minorities. The Army is far in advance of the civilian community in this regard and members of racial minorities are found in positions of authority and responsibility throughout the Army.

The "open" nature of the military society increases the chance of success of a remedial training program because it offers the opportunity for advancement to those with ability. Consequently, it should serve as an important force in motivating the rejectees to improve their ability. As has been noted earlier, one of the important characteristics of the rejectee group has been their lack of motivation, in part due to the fact that, in the civilian community, advancement on merit was more difficult. The clear evidence that advancement in the Army is possible, should serve to motivate the rejectees to work hard in any remedial training program which may lead to acceptance by the Army.

Control over the "whole" man is the second factor increasing the likelihood of success of a remedial training program in a military setting. Much evidence indicates that the problems of the culturally and economically deprived are complex and interrelated. For example, over-crowding affects health and health affects performance in school. To deal with only one aspect of the problem is doomed to failure. A broad and coordinated approach is what is needed and this requires some modicum of control over the "whole" man. Such control is not possible in a civilian setting and one of the reasons cited for the past failures of the public schools in dealing with culturally deprived children is this lack of

authority to deal with more than a narrow segment of the child's life. Too often, what is taught in the schools is not supported by what happens in the neighborhood and in the home. In fact, the two may be in direct conflict as when, for example, the school urges the child to value an education and the parents urge the child to get a job. Increasingly, this problem is being recognized and steps are now being taken to develop coordinated programs to deal with the whole child. The schools are being given more responsibilities, and public and private agencies are increasingly cooperating with the school in a coordinated program to help the child...in the school, in the neighborhood, and in the home.

A remedial program conducted within a military setting does not face this problem of inability to deal with the "whole" man. Once inducted into the service, the soldier is subject to guidance and control in practically every aspect of his life. From the time he wakes up, until the time he goes to bed, he is (or can be) subject to pressures designed to improve his effectiveness. These pressures can be designed to remove defects with regard to such things as eating and sleeping habits, manner of dress, grooming, personal hygiene, and work and study habits. They also can be used to correct any medical or physical deficiencies that are present. In short, the Army can exert corrective or remedial pressure on many, if not all, of the rejectees' inadequacies. Moreover, since control in the Army is centralized, the pressures can be developed into a coordinated program.

One further advantage--when a young man's total time is under control, there is much greater flexibility permissible in designing an educational training program. There is nothing sacred about a certain segment of the day being allotted for school, another for recreation, etc.

We have described some of the large scale programs which were tried in the past. The fact that, in general, these programs were not successful raises a large number of questions which can be answered through research. In the following sections we will raise some of the major questions, cite relevant research findings where possible, and conclude by suggesting what further research might be done. It must be remembered that consideration of the "culturally deprived" or the "educationally disadvantaged" young adult has not been longstanding and thus, there is not a large body of research literature specific to this group.

This neglect, in part, is due to the strength of two basic assumptions which have dominated American education and training in the twentieth century. According to these assumptions, intelligence is seen as an immutable individual characteristic, and the development of the individual's basic response repertoire is pretty much determined by his heredity. It has been only, in perhaps at most, the past 10 years that these assumptions have been seriously questioned and tested in America. As a result, we can recognize the increasingly significant role of experience, and especially early experience, in the educability, trainability, and ultimate coping capacity of the individual. The emphasis in programs aimed at marginal people changes as a result of the questioning or rejection of these assumptions. Whereas in the past, the principle objective was to enable people to perform a specific task (teaching him just the necessary words and phrases to serve in an Army camp, for example), current programs are more geared toward the more optimistic goal of "educating" abilities and aptitudes.

What for these young adults is the optimal classroom or shop learning environment?

All of the men in the proposed target group have spent usually at

least seven or eight years in a classroom and have not profited from the experience. The programs described earlier have generally duplicated the typical classroom with a change in the teaching materials being the main difference. We have questioned the wisdom of putting these men back in a physically similar environment to the one in which they experienced failure and frustration. In addition to the physical similarity, we would wonder whether the pedagogical similarity might also prove to be detrimental. If a somewhat conventional classroom setting is employed, what is the optimal class size in instructor-pupil ratio? How much active participation is desirable and, in light of current trends and emphasis, what role do audio-visual and programmed instructional devices play in the education and training of these people? The research literature on programmed learning has become enormous within the past few years but, again, the group we are particularly interested in has not been specifically considered. From our review of some of this literature, however, it would seem that programmed instruction and audio-visual devices in the proper context, might be particularly beneficial. Yet, the facile adoption of programmed instruction may eventually backfire. The assumptions underlying programmed learning (whether they be those of Skinner or others) require, it seems to us, certain sets or predispositions on the part of the learner which might not be part of the behavioral repertoire of the young adults of our target group. They may very well have to be taught how to learn and there is some evidence to suggest that a modal style of learning in this particular population differs from a typical sample in that it requires active engagement -- motor activity, physical movement. Evidence and impression is that they do not like testlike conditions, pressure, or deadlines. Obviously it is not a question of either-or regarding programmed instruction. We do, however, need to

know much more about the interaction of this technique with this population before we can confidently suggest an operational large-scale educational program.

As in the past, an operational program will undoubtedly and necessarily be set up long before enough is empirically known about how to go about it in an optimal way. Yet it should be kept in mind that such a program is tentative and should be organized to be sensitive to research findings obtained through independent study as well as through controlled modifications of the ongoing program.

We will have more to say later about programmed instruction when we discuss individual differences. It appears, at this point, however, that if there is a requirement for a large scale program to go into operation immediately (such as that envisioned by DOD) the only practical way it could operate economically would be through use of automated, instrumented, or programmed aids. In fact, with the shortage of teachers and especially those teachers trained and capable of working with special populations, it may be that the only way such a program could possibly operate would be through uses of such devices.

2. What role is the optimal role for the instructor in a special program for young adults?

This is somewhat related to the first question, but here the emphasis is more on the desired behavior and methods of the instructors. Again there is no direct evidence to be gleaned from our survey of the literature and we can only infer from analogous studies and articles. It is safe to assume, however, that instructors dealing with this population will have to have drastically different expectations of their students' aspirations, comprehension, and communicability. Whether most instructors could acquire

and maintain this different set quickly or whether people must be carefully selected for such positions is a question for research. Where along the dimension of permissiveness-authoritarianism is the optimal role of the instructor in a classroom; whether the conventional lecture-listenfeedback mode of instruction is optimal; and what behavior on the part of the instructor will be optimally motivating to the population are all questions requiring research for valid answers. Certainly, if we can generalize at all from the literature on educating young children in the class called "culturally deprived," we <u>must tonsider a radically different role for the instructor if anything is to be accomplished. To cite just one example: There is some evidence that under certain educational conditions the presence of an instructor is actually <u>detrimental</u> to learning. This certainly suggests a change in role; the instructor would absent himself from the class!</u>

3. What are the mental characteristics and psychological predispositions of these young adults?

Earlier, we briefly described some of the background characteristics of our target population. Next to nothing is known about the way they function intellectually as young adults. A common but untested assumption is that they learn "like everyone else" except slower and at a significantly simpler, more concrete level. The programs established in the past have, in the main, taken primary grade material and presented it to young adults or, at best, translated such material into more adult concepts replacing a picture of a wagon with a picture of a car. We do not know whether this population learns "like everyone else." In fact, it is quite probable that within this seemingly homogeneous population there are many sub-classifications as for example on the basis of (a) preferred learning modes, (b) cognitive controls, (c) learning styles, (d) learning

rates, (e) motivational or incentive categories, and (f) formation of logical structures.

How does this population or sub-populations within it acquire concepts and complex knowledge? Are their concepts "different" in quality and content? Are certain concepts retained more easily, and if so, why? Research here is wide open; practically everything currently thought is conjecture. If, in fact, early cultural deprivation does have severe effects on the capacity and competency of the adult to function, then we must know more about how, from a psychological point of view, he does see his world and what he sees. There are in both the educational and psychological research literature a number of taxonomies of individual mental "traits" or "factors" as well as taxonomies of tasks, or activities. It would be productive and useful as well as interesting to investigate the "culturally deprived" young adult population through the framework of these taxonomies.

Research carried out in the area of the young adult who is a product of "cultural deprivation" needs no justification further than the obvious social and economic need. The problem is now apparent, the research questions easily proposed. All that is necessary is the support and the facilities.

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