


**INSTITUTE
FOR
RESEARCH
IN
LEARNING
DISABILITIES**



The University of Kansas
Lawrence, Kansas, 66045

Emphasis on Adolescents and Young Adults

THE CURRENT STATUS OF YOUNG ADULTS
IDENTIFIED AS LEARNING DISABLED DURING
THEIR SCHOOL CAREER

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Cooperating Agencies

Were it not for the cooperation of many agencies in the public and private sector, the research efforts of The University of Kansas Institute for Research in Learning Disabilities could not be conducted. The Institute has maintained an on-going dialogue with participating school districts and agencies to give focus to the research questions and issues that we address as an Institute. We see this dialogue as a means of reducing the gap between research and practice. This communication also allows us to design procedures that: (a) protect the LD adolescent or young adult, (b) disrupt the on-going program as little as possible, and (c) provide appropriate research data.

The majority of our research to this time has been conducted in public school settings in both Kansas and Missouri. School districts in Kansas which are participating in various studies include: United School District (USD) 384, Blue Valley; USD 500, Kansas City; USD 469, Lansing; USD 497, Lawrence; USD 453, Leavenworth; USD 233, Olathe; USD 305, Salina; USD 450, Shawnee Heights; USD 512, Shawnee Mission, USD 464, Tonganoxie; USD 202, Turner; and USD 501, Topeka. Studies are also being conducted in Center School District and the New School for Human Education, Kansas City, Missouri; the School District of St. Joseph, St. Joseph, Missouri; Delta County, Colorado School District; Montrose County, Colorado School District; Elkhart Community Schools, Elkhart, Indiana; and Beaverton School District, Beaverton, Oregon. Many Child Service Demonstration Centers throughout the country have also contributed to our efforts.

Agencies currently participating in research in the juvenile justice system are the Overland Park, Kansas Youth Diversion Project and the Douglas, Johnson, and Leavenworth County, Kansas Juvenile Courts. Other agencies have participated in out-of-school studies-- Achievement Place and Penn House of Lawrence, Kansas, Kansas State Industrial Reformatory, Hutchinson, Kansas; the U.S. Military; and the Job Corps. Numerous employers in the public and private sector have also aided us with studies in employment.

While the agencies mentioned above allowed us to contact individuals and supported our efforts, the cooperation of those individuals--LD adolescents and young adults; parents; professionals in education, the criminal justice system, the business community, and the military--have provided the valuable data for our research. This information will assist us in our research endeavors that have the potential of yielding greatest payoff for interventions with the LD adolescent and young adult.

Abstract

Research efforts in the field of learning disabilities (LD) have addressed primarily concerns within school settings; however, if learning disabilities are more than a school phenomenon, researchers and educators must begin to examine the effects of these disabilities on post-school adjustment. This study sought to examine among learning disabled and non-learning disabled (NLD) young adults a broad array of factors known to be indicative of personal, social, and vocational success.

The results indicate that the LD young adults sampled appear to be adjusting as well as the NLD sample in a number of important areas (e.g., getting and maintaining employment, having friends, etc.). However, LD young adults reported they were significantly less satisfied with their employment situation and their contacts with parents and relatives. They were much less involved in recreational and social activities and few had plans for further education and training. Implications of these trends on the life adjustment of, and research efforts related to, LD young adults are discussed.

Since the early 1960s, substantial amounts of human and financial resources have been directed toward identifying, remediating, and researching the population of persons labeled as learning disabled. Unlike the study of other groups of handicapped persons, however, this activity has taken place almost exclusively within school settings; little research or support has concentrated on non-school settings. Yet, if learning disabilities are more than a school phenomenon, researchers and educators must begin to assess the effects of these disabilities on post-school adjustment.

Investigations relevant to the long-term effects of learning disabilities can be divided into three categories according to: (1) diagnostic criteria, (2) age of subjects, and (3) measures of adult outcome. Studies focusing on diagnostic criteria have dealt with learning disorders and academic failure as symptoms of more general emotional and/or neurological problems. These studies have sought to establish whether behavior and learning problems persist into adulthood and affect vocational and social adjustment. One of the major investigations in this category is that of Menkes, Rowe, and Menkes (1967). They attempted to measure adult outcome of 18 patients seen in a child psychiatric clinic between 1937 and 1946. The subjects were retrospectively diagnosed as having shown symptoms of hyperactivity and minimal brain dysfunction. The investigators found a positive correlation between adult and childhood IQ scores and independent living and socio-economic status, i.e., those scoring highest on the IQ measure were kept able to support themselves.

A second category of studies has followed children with early patterns of academic failure and school maladjustment through to

later periods in their school careers. The majority of investigations in this category focused on the importance of early academic and social difficulties. Hunter and Lewis (1973) reported a two year follow-up of 18 dyslexic males, ages 9-13. They found that although higher IQ scores were correlated with academic improvement and adjustment, the group showed lower academic achievement and social adjustment than a matched control group despite remedial efforts. Huesy and Cohen (1976) followed 50 grade school children for seven years to evaluate their adjustment in high school. They found that the number of early symptoms of hyperactivity seemed to be a predictor of the degree of later learning problems and social difficulty. Rawson (1968) reported that remedial intervention can produce significant increases in school performance, while Hardy (1968) stated that intervention has been ineffectual in producing lasting changes.

The third category of studies represents attempts to determine the persistence of specific learning problems into adulthood. Two of the most ambitious investigations in this category were conducted by Hardy (1968) and Lehtinen and Tuomisto (1977). Hardy's follow-up study involved 40 formerly reading-handicapped children. She found satisfactory vocational adjustment for the subjects but unsatisfactory social adjustment as compared with a control group of normal readers. Sixty-five percent of her study group reported vocational satisfaction and stability despite the fact that the majority had unskilled or semi-skilled occupations. A major finding in this study was that the degree of earlier reading handicaps did not seem to influence eventual vocational and social outcomes.

Lehtinen & Tuomisto (1977) conducted a follow-up study of 91 adults, ages 21-39, who had been identified as learning disabled while they were in school and who had received remedial education between the ages of six and thirteen. Sixty-nine percent had graduated from high school, 36 percent had graduated from college, and eight percent had completed or were pursuing graduate study. Sixty percent were unemployed and 15 per cent were married.

Several tentative conclusions can be drawn from these investigations. First, research on the long-term effects of learning disabilities has not yielded consistent results. This ambiguity is due, in large part, to the variance in population definitions and procedures used for selecting the sample populations. Some study groups were drawn from client populations of psychiatric clinics, some from reading clinics, while others were samples from the population of school failures. In addition, researchers have used a wide variety of diagnostic procedures, identification procedures and methods, and criteria for adult success. Second, while some investigations have demonstrated the positive import of remedial programs, other studies have reported that these effects are not lasting. Third, most adult outcome studies have measured occupational achievement and social adjustment narrowly. They fail to measure a broader array of factors known to be indicative of personal, social, and vocational success. The need to collect extensive epidemiological data across settings and circumstances has not been addressed.

The present study was designed to address this third concern. Information on a wide range of adult adjustment criteria was

collected on both learning disabled and non-learning disabled young adults. This information will form the basis of a descriptive data base upon which future research may be directed.

Methodology

Subjects

Two groups of young adults were sampled for this study: young adults who were diagnosed as learning disabled by their schools sometime during their elementary or secondary school participation and young adults who were not labeled as learning disabled and did not receive special services while in school. A complex selection process was utilized to insure equivalency of the groups.

Researchers analyzed the student files of all students who had received special education from the 1972-73 school year through the 1978-79 school year in a large suburban school district. Files indicating the student had received special services because of mental retardation or physical or sensory problems were replaced. The retained files were again analyzed and information concerning achievement, intelligence, etc., was collected. This information was used to determine whether the student was learning disabled according to specified validation criteria (See Appendix A). Only students who met these criteria were retained for subsequent participation in the study. A list of students whose files were retained was then compared to a local telephone directory to determine if the student or his/her parents were still in the metropolitan area. If neither student nor parent could be found in the directory, the name was discarded. This process yielded names of 80 LD young adults.

The non-LD (NLD) sample was randomly selected from a computer-generated list of students whose records indicated they had never received any form of special services from the school. In order to control for hard-to-locate persons, the sample was stratified to equal approximately twice the number of LD individuals at each intended year of graduation from high school (for example, if the ages of 15 persons in the LD sample indicated they should have graduated in 1976, approximately 30 persons from the NLD list who graduated, or should have graduated, in 1976 were selected). One hundred eighty persons were selected in this manner. The local telephone directory was again consulted to determine the number of persons, or their parents, who were still in the vicinity. One hundred persons were located. The LD and NLD samples were again compared and matched in terms of sex and intended year of graduation. Two samples of 80 persons each resulted.

Procedures

Participation in the study was solicited by contacting all subjects by telephone and explaining the purpose of the study. Those persons indicating they would like to participate were sent a packet of material which included a brochure explaining the study, two consent forms (one to be returned and one for the respondent to keep), the Young Adult Instrument, and a stamped envelope addressed to the Institute for returning the instrument. A second round of phone calls and a remailing of packets was done for the subjects whose assessment instrument was not received by the Institute within 30 days. Forty-seven LDs and 59 NLDs returned the form. All persons who returned the form were paid \$5.00. Detailed descriptions of the samples are included in the Results section of this report.

Setting

The study was conducted in a large, middle-class suburb of the Kansas City metropolitan area. The district has approximately 35,000 students enrolled and employs approximately 1,700 teachers.

Measurement System

The Young Adult Instrument used in this study was developed by the staff at the Institute for Research in Learning Disabilities (IRLD) at The University of Kansas. Following a thorough literature review, staff members compiled a list of variables which were frequently mentioned as having been observed in LD adolescents and young adults. To this list were added variables included in the IRLD Youth Instrument (used by the Institute to establish an epidemiological base for school-based samples of LD and NLD persons). One hundred forty-seven variables resulted from this process. The variables were divided into the following components: demographic characteristics, family background, vocational characteristics, social/personal characteristics, legal characteristics, medical/drug characteristics, and perceptions of past and future education. Questions probing each variable were then written. Answer alternatives included multiple-choice, open-ended, and Likert-type scales (see Appendix B for a copy of the assessment instrument).

Data Analysis

The large number of variables used in this study (147), and the relatively small sample sizes of respondents (LD=47; NLD=59) created a situation in which the results of inferential statistics to test differences between groups become tenuous at best. However, because the nature of the study was to create a descriptive data base to give direction to future research rather than analyzing

effects from a controlled experiment, the decision was made to attempt to gain as much information as possible from the study. Therefore, analysis of variance (ANOVA) procedures were used to test differences between the groups on the 147 variables. The authors acknowledge the risks associated with this procedure. In addition, a discriminate analysis was performed. Variables for the analysis were selected on the basis of the results of the ANOVAs.

Results

Subject Characteristics

Information relating to a number of demographic variables was requested from each participant in the study. This information was used to determine the equivalency and make up of the two samples. The requested information included: age, sex, race, length of time since leaving high school, last school grade completed, degrees earned by self, mother and father's highest achieved educational level, and mother and father's occupation at the time the respondent was in high school.

The two groups of participants differed little with respect to most demographic variables. Table 1 shows both groups were about

Insert Table 1 about here

the same age (LD, $\bar{x} = 20.31$; NLD, $\bar{x} = 20.59$), all respondents were Caucasian, most respondents had completed high school, and both groups had been out of high school for the same length of time. The groups differed in the ratio of males to females in the samples (LD = 1.78:1; NLD = 3.55:1).

Insert Table 2 about here

Data in Table 2 shows the educational attainment of the two samples. LD young adults reported holding significantly fewer high school diplomas ($p < .01$) and bachelor's degrees ($p < .01$).

Family Background

Several questions in the family background section of the Young Adult instrument requested information concerning parents' educational level. Table 3 reports the highest educational level attained by

Insert Table 3 about here

the parents of the respondents. Mothers of both groups of participants were reported to have a lower educational level than the fathers. Fathers of the LD participants were reported to have a lower educational level than fathers of the NLD samples. None of these effects was significant however.

Also requested of respondents was information about their parents' occupations while the respondent was in high school. Because of the difficulty in comparing job titles to determine occupational to status, all job titles were converted to the Duncan Socioeconomic Index (Reiss, Duncan, Hatt & North, 1961). This index classifies social status position by rating occupations on a 0 to 100 scale. The higher the rating, the higher the social status. No differences were found in the comparisons of fathers of LD and fathers of NLD and mothers of LD and mothers of NLD.

In summary, the demographic and family background information indicated the samples were equivalent in nearly all respects.

Differences between the groups were found in the ratio of males to females in each group and the number and type of educational degrees held by the respondents. No differences were found in family background characteristics.

Vocational Adjustment Characteristics

One of the overriding factors in postschool success is vocational adjustment. The ability to get and maintain a job, the level of income one can obtain, and the type of job one gets impact on nearly all other facets of a person's life, from the type and quality of housing one can afford to the type of friends one has to the opportunity for further education or training. Accordingly, a substantial number of questions in the assessment instrument addressed various components of vocational adjustment.

The employment status of both groups of respondents at the time of the study was similar in most respects. Table 4 lists a sample of the types of jobs held by both groups. Table 5 reports pertinent employment statistics.

Insert Tables 4 and 5 about here

Seventy-seven percent of the LD group and 67 percent of the NLD group stated they were employed at least part-time. The LD sample had worked a mean of 16.75 months and were working a mean of 39.71 hours per week. The NLD sample had worked a mean of 11.64 months and were working a mean of 35.74 hours per week. After the jobs reported by both groups were transformed to the Duncan Socioeconomic Index in the same manner as the Family Background information reported above, the LD young group displayed a significantly lower mean job status than the NLD group ($p < .008$).

Unemployment statistics for the groups were also similar. The mean number of months the LD group was unemployed ($\bar{x} = 7.15$) was lower than the average number of months unemployed for the NLD group ($\bar{x} = 8.07$); however, the range of months was slightly higher for the LD group. This trend was also evident in the amount of time unemployed, but not seeking work. The average number of months unemployed for the LD group ($\bar{x} = 3.48$) was lower than the average for the NLD group ($\bar{x} = 5.22$), but the range in months was higher for the LD young adults. None of this unemployment data were statistically significant (See Table 6).

Insert Table 6 about here

One of the most striking differences among the vocational characteristics of the two groups was the extent to which they were happy with their current employment/unemployment situation. Table 7 shows

Insert Table 7 about here

the results for this item. The LD sample reported they were neither happy nor unhappy while the NLD sample seemed to be fairly content with their employment situation ($p < .01$). The degree of happiness reported by each group was apparently unrelated to earned income, since the distributions of income for each group were very similar (See Table 8). Approximately 75 percent of both groups earned \$7,500

Insert Table 8 about here

or less and nearly 60 percent of both groups earned \$5,000 or less.

Social/Personal Characteristics

Successful adjustment in the vocational domain is typically a quantitative success; it usually means bigger or better housing, the availability of more expensive or more frequent leisure activities, more or better clothes, etc. Successful adjustment in the social/personal domain is a qualitative success; it relates to the ability to establish and maintain interpersonal relationships and contacts with other adults. Because of its importance to overall adjustment, the assessment instrument contained a substantial number of items relating to social/personal adjustment.

Possibly due to the relatively short times many of the respondents had been out of high school, few persons in either the LD or NLD sample reported they were, or had been, married. Only three persons (6.4 percent) in the LD sample and one person (1.7 percent) in the NLD sample stated they were married at the time of the survey. One person in the NLD sample reported being separated from their spouse. No one in either group had been married more than one and one half years. Of those married, most stated they were happy with their current marriage situation. One person in each group reported having a child; both children were one year old at the time of the study.

A second major component in social/personal adjustment is making friends and taking part in activities. Both groups reported approximately the same number of friends they could "talk to about things that are very important" to them (LD \bar{x} = 4.45; NLD \bar{x} = 4.96). However, the NLD group reported having more friends they could go places with or share activities with (LD \bar{x} = 9.13; NLD \bar{x} = 14.08).

The groups also differed with respect to their involvement in different types of activities. Neither group was involved in church or religious activities, politics, community service, professional organizations, or labor union activities. The NLD group was more active in social or fraternal activities ($p < .01$) and recreational activities ($p < .05$) than the LD sample. The NLD group also reported belonging to more community clubs and groups than the LD groups ($p < .01$).

In general, neither group seemed to be mobile. Approximately 90 percent of both groups had lived in two or fewer towns since high school (this could also be a function of the relative recency of leaving high school). Eighty-two percent of the LD sample reported they were living in the same town as their parents, compared to 65 percent for the NLD sample. Fifty percent of the LD sample and 41 percent of the NLD sample reported living with their parents. Both groups had approximately the same amount of contact with their relatives, but the LD group stated they were much less happy with their contacts ($p < .05$). Table 9 presents this information.

Insert Table 9 about here

Legal Characteristics

The two groups of respondents differed little with regard to the number of contacts with law enforcement or justice agencies. Thirteen percent of the LD group and 12 percent of the NLD group reported having been arrested. Although considerably more LD young adults reported they had been convicted of a crime by a court of law than the NLD sample ($p < .05$), there was little difference in

the samples in terms of time served in jail; four percent of the LD samples had served time where none of the NLD sample had.

Medical/Drug Characteristics

Four questions on the instrument requested information concerning drug intake and usage. Few differences between the groups were found. The majority of both groups drank alcoholic beverages approximately twice a week, used any kind of drug (other than alcohol) no more than once a month, and smoked less than a pack of cigarettes a day. The only area of difference between the groups was their use of prescribed medicine. Twenty-four percent of the LD sample stated they were currently using medicine prescribed by a doctor whereas only nine percent of the NLD sample were using prescribed drugs ($p < .05$).

Perceptions of Past and Future Education

Two items in the assessment instrument requested respondents to rate their degree of satisfaction with their school experiences. The results of the first revealed that the LD group was "slightly happy" with the special help they had received in school. The results of the second question reinforce this position; the LD respondents reported they were less happy with their education in junior and senior high school than the NLD respondents (See Table 10). Related to these questions were several items requesting information

Insert Table 10 about here

about the amount and sources of assistance they had received since high school. Neither group reported receiving much help in activities requiring skills in reading, writing or math. The primary sources

of help for both groups were parents, relatives, and friends. The LD group reported receiving less support from parents and relatives ($p < .05$), but more support from professional counselors ($p < .01$).

The two samples reported differing levels of educational plans and aspirations. More NLD (84 percent) than LD (67 percent) respondents stated they have plans for future educational activities ($p < .05$). Table 11 represents the level of educational aspirations for both groups. In general, the LD group reports lower aspirations than the NLD group ($p < .001$).

Insert Table 11 about here

Characteristics Derived by Discriminate Analysis

A discriminate analysis using variables logically selected from both the descriptive statistics and the results of the ANOVAs was performed on the data. The following variables were included:

1. Father's occupation
2. Father's educational level
3. Mother's educational level
4. Current employment status of respondent
5. Earned income of respondent
6. Respondent living in same town as parents
7. Number of friends to share activities
8. Degree to involvement in social or fraternal activities
9. Degree of involvement in recreational activities
10. Use of prescribed drugs
11. Convictions by a court of law
12. Satisfaction with education in junior and senior high

13. Plans for future education or training
14. Place of residence
15. Satisfaction with employment situation

At step 9 of the analysis, maximum classification was reached. Seventy-three percent of the total sample was correctly classified as LD or NLD on the basis of five variables. These variables included:

1. Satisfaction with employment
2. Degree to involvement in social or fraternal organizations
3. Degree of involvement in recreational activities
4. Use of prescribed drugs
5. Plans for future education or training

These results are interesting in that no effects from parents (educational levels, occupation) were included in the final equation. Four of the five significant variables (all except drug use) are concerned, at least tangentially, with affective components of adjustment. Satisfaction with employment, degree of involvement in social and recreational activities, and plans for future education relate to perceptions of one's social and physical environment; the LD young adults were significantly lower than the NLD young adults on all of these variables.

Discussion

Several factors must be considered when discussing the implications of this study. First, as with most retrospective studies, the possibility for bias stemming from the selection of the sample or the nature of the persons willing to respond is present. Although the demographic information supplied by the respondents shows the groups themselves are much alike in most respects, no claim is made

that the sample is representative of all young LD and NLD adults. Second, at this stage in the development of research with the learning disabled, it is very difficult to locate large numbers of young adults who were identified as LD when they were in secondary school. Public school identification of and programming for this population has a relatively short history; many schools have provided services for five or fewer years. Large numbers of these children were included in classes for the mentally retarded, emotionally disturbed, etc. Thus, the size of the sample is small. Hopefully, researchers in the future will be able to gain access to larger numbers of adults with learning disabilities. Related to the problem of sample size is the difficulty in statistically treating such a large number of variables. The use of analysis of variance to show differences between groups on a large number of variables dramatically inflates the experiment-wise error rate. However, because this study was designed as a probe to provide a descriptive data base for future research, the decision was made to risk the inflated error rate and attempt to derive as much information as possible from the data.

The number of significant and meaningful differences reported by the groups was relatively small. In the area of vocational adjustment only a few differences were found: LD students were holding jobs with less social status and were less satisfied with their employment situation. Socially, the groups differed mainly with respect to their degree of involvement in recreational activities and social organizations and their degree of satisfaction with parental contacts.

LD young adults reported using more prescription drugs and were more often convicted of crimes. In addition, LD young adults were less satisfied with their school experiences, had lower aspirations for future education and training, and had fewer educational plans. LD young adults also reported receiving less support from parents and relatives and more from professional counselors.

In contrast, the groups were very similar in a number of areas. Both groups were holding approximately the same number of full-time jobs, were earning about the same amount of money, and spent about the same amount of time unemployed. Both groups had a number of friends, more persons in both groups live at home than any other place, and most have frequent contact with parents and relatives. The groups did not differ in the amount of alcohol and drugs (other than prescription drugs) they use or in the number of arrests or time served in jail.

Although conclusions based on these results must be considered tentative, several trends emerge. First, the LD sample seems to be adjusting as well as the NLD sample in a number of important areas (e.g., getting and maintaining employment, having friends, etc.). The second trend relates to "quality of life". LD young adults reported they were significantly less satisfied with their employment situation and their contacts with parents and relatives. They were much less involved in recreational and social activities. Few had plans for further education or training. Taken alone, the first trend (success in some areas of adult adjustment) may be cause for cautious optimism. However, viewed together, the trends may be cause for concern. That is, although LD young adults are "making it"

in a number of important areas, they seem to be much less satisfied with at least some areas of their lives. Presumably, this can be related, in part, to the way in which past experiences have shaped their present attitudes and values, the difference between their expectations for adult life and what they have encountered, or a combination of these. In any case, the schools have neither adequately prepared the LD young adults for the social/affective facets of adult life nor taught them what to expect when they leave school.

Another concern raised by these results relates to future research problems with this population. In order for researchers to discriminate between LD and NLD young adults they must develop efficient, cost-effective, and valid procedures to measure important variables. Yet LD and NLD young adults seem to differ little on the variables which are the most efficient, cost-effective, and valid to measure. The variables resulting in best discrimination between the groups are, in general, social/affective variables, traditionally the most difficult to validly measure. This, it may be more difficult than originally thought to develop measures to discriminate between the LD and NLD young adults.

The results of this study point to the need for further efforts to develop valid procedures for identifying learning disabled adults. While the instrument used did detect differences between the groups, it was very possibly too gross to detect more subtle, but perhaps more significant, differences. In future investigations more emphasis should be placed on the areas found to be significant in this study. Additional valuable information could be gained by investigating young adults who were underachievers in school, but who were not considered learning disabled.

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TABLE 1
Selected Demographic Data

Variable	LD	NLD
Age	$\bar{x} = 20.31$ SD = 1.40 Range = 18-24	$\bar{x} = 20.59$ SD = 1.43 Range = 18-25
Sex	30 males (64%) 17 females (36%)	46 males (78%) 13 females (22%)
Race	All Caucasian	All Caucasian
Length of time since high school (in months)	$\bar{x} = 29.64$ SD = 17.15 Range = 3-60	$\bar{x} = 34.31$ SD = 16.17 Range = 12-83
Last Grade completed	$\bar{x} = 11.82$ SD = 0.49 Range = 10-12	$\bar{x} = 11.98$ SD = 0.13 Range = 11-12

TABLE 2
Earned Degrees

Degrees	LD (%)	NLD (%)
None	2.2	8.5
G.E.D. Certificate	8.7	1.7
Occupational Certificate	8.7	5.1
High School Diploma	*73.9	*91.5
Associate Degree	0.00	13.6
* p < .01		

TABLE 4
Selected Job Titles

LD JOB TITLES	NLD JOB TITLES
Masonry laborer	Customer service agent
Camper repair	Cook
Cashier	Telephone operator
Jet Mechanic	Sales representative
Proof operator	Fireman
Waitress	Cashier
Painter	Bank teller
EKG technician	Bartender
Secretary	Sales clerk
Assembly line worker	Mechanic
Chef	Research assistant
Computer operator	Bellman

TABLE 5
Current Employment Statistics

Socioeconomic					
	N	%	Index	Months on Job	\bar{x} Hours/Week
LD	32	77	28.82 [*]	16.75	39.71
NLD	39	67	40.66 [*]	11.64	35.74
* p < .008					

TABLE 6
Unemployment Statistics

	Total Months Unemployed	Total Months Unemployed/Not seeking work
LD	$\bar{x} = 7.15$ SD = 9.12 Range = 0 - 40	$\bar{x} = 3.48$ SD = 6.30 Range = 0 - 36
NLD	$\bar{x} = 8.07$ SD = 9.55 Range = 0 - 36	$\bar{x} = 5.22$ SD = 7.72 Range = 0 - 29

TABLE 7

Happiness with Employment Situation

		LD	NLD
Very Unhappy	1		
Unhappy	2		
Slightly Unhappy	3	* $\bar{x} = 4.27$	* $\bar{x} = 5.53$
Neither Happy or Unhappy	4	SD = 2.31	SD = 1.82
Slightly Happy	5	Range = 1 - 7	Range = 1 - 7
Happy	6		
Very Happy	7		
* p < .01			

TABLE 8
Earned Income

Scale	LD	NLD
No income.....0		
\$1 - \$5,000.....1		
\$5,000 - \$7,500.....2	$\bar{x} = 1.61$	$\bar{x} = 1.82$
\$7,501 - \$10,000.....3	SD = 1.19	SD = 1.39
\$10,001 - \$15,000.....4	Range = 0 - 5	Range = 0 - 5
\$15,001 - \$20,000.....5		
\$20,001 - \$25,000.....6		
over \$25,000.....7		

TABLE 9
Happiness with Contacts with Relatives

	LD	NLD
Very Unhappy.....1		
Unhappy.....2		
Slightly Unhappy.....3	$\bar{x} = 5.28^*$	$\bar{x} = 5.93^*$
Neither Happy or Unhappy..4	SD = 1.50	SD = 1.44
Slightly happy.....5	Range = 1 - 7	Range = 1 - 7
Happy.....6		
Very Happy.....7		
* $p < .05$		

TABLE 10
Happiness with Past Education

	LD (%)	NLD (%)
Very Unhappy.....1	10.9	6.8
Unhappy.....2	13.0	3.4
Slightly Unhappy.....3	10.9	8.5
Neither Happy nor Unhappy.4	15.2	11.9
Slightly Happy.....5	17.4	22.0
Happy.....6	26.1	40.7
Very Happy.....7	6.5	6.8
* p < .05	$\bar{x} = 4.20^*$ SD = 1.86	$\bar{x} = 4.88^*$ SD = 1.60

TABLE 11
Educational Aspirations

	LD (%)	NLD (%)
Job training (e.g., CETA).....1	22.6	2.0
Trade school.....2	25.8	4.1
Junior college.....3	12.9	12.2
College.....4	25.8	53.1
Advanced professional courses (e.g., correspondence course, workshops).....5	12.9	12.2
Graduate work.....6	00.0	16.3
p < .001	$\bar{x} = 2.81^*$ SD = 1.40 Range = 1 - 5	$\bar{x} = 4.18^*$ SD = 1.11 Range = 1 - 6

APPENDIX A

INSTRUCTIONS FOR FILLING OUT THE SCHOOL RECORDS DATA SHEETS

PLEASE READ BEFORE STARTING

There are several types of questions in this instrument. Please answer each question as indicated in the following examples. If you don't know the answer to a question, or don't wish to answer a question, just leave the answer blank and move on to the next question.

Type 1

This type of question asks you to fill in a blank. Just put the answer in the blank which is located on the right side of the page.

Example question and answer

Total number of times youth has been suspended from school 3 suspensions

Type 2

This type of question asks you to select one of several answers as best representing the situation. There will be only one column of numbers to the right of the possible answers. Please circle the number next to the one answer that best fits the situation.

Example question and answer

What is the youth's race?

White.....	1
Black.....	2
Hispanic.....	3
Native American.....	4
Asian.....	5
Other.....	6

Type 3

This type of question will have two or more columns of numbers to the right of the answers. Circle one number below the appropriate column for each answer.

Example questions and answers

1. What is this youth's diagnosis?

Learning disabled	No	Yes
Emotionally disturbed	1	2
Mentally retarded	1	2

CRITERIA FOR INCLUSION IN LD SAMPLES

Please use these criteria for filling out #16 on the School Records Data Sheet.

The Validation Team will decide whether or not a given subject fits within the Institute's concept of the L. D. population. The basis for this decision will be an exclusionary one; that is, a student will be a validated member of the L. D. population if she/he does not fit a description of students who are excluded from the population by the L. D. definition. In order to make this decision, the Validation Team needs information concerning each of your subjects. Those students who will be excluded from the L. D. population of the Institute are:

- (1) Students with no deficits in the 8 areas specified in the LD definition (math calculation, math reasoning, reading recognition, reading comprehension, oral expression, written expression, listening, spelling).
- (2) Students whose intelligence scores fall below -2 standard deviations from the mean.
- (3) Students who fit the definition of "children with personal and social adjustment problems" which were manifested before the student evidenced learning problems. The definition of these children which will be used by the Validation Team is as follows: Personal and social adjustment problems typically manifest themselves as marked behavior excesses and deficits which persist over a period of time. Behavior excesses and deficits includes the following:
 - (a) Aggressive and/or anti-social actions which are intended to agitate and anger others or to incur punishment.
 - (b) Inappropriate and/or uncontrollable emotional responses
 - (c) Persistent moods of depression or unhappiness
 - (d) Withdrawal from interpersonal contacts
 - (e) Behaviors centrally oriented to personal pleasure seeking with little or no regard to the consequences of any acts

Singly or in combination, behavior excesses and deficits may be indicative of emotional disturbance, mental illness, or social maladjustment if they are manifested over an extended period of time in various environments, and may interfere with social interactions and learning.

- (4) Students who are economically disadvantaged. In order to fit this category, a student's family must have financial difficulties so severe that they require substantial assistance from SRS or other government agencies. Examples of youths who may fit this category are: Youths whose parents are on welfare; a youth whose mother receives ADC payments.

- (5) Students who are environmentally disadvantaged. In order to fit this category, a student's home environment must have been or be substantially different from the family environment of most children and represent a severe level of deprivation or neglect before the learning problems surfaced. Examples of youths who may fit this category are: A youth who has been formally placed outside the natural home; a youth who was kept in a closet; a youth who was abused or neglected to the extent that formal inquiry was made; a youth who was somehow isolated from any life outside the home; a youth whose parents were killed and has lived in several homes since then.
- (6) Students who are culturally disadvantaged. In order to fit this category, a youth must have been raised in a culture either within or outside of the United States which is substantially different from mainstream American life. Examples of youths in this category are: A youth raised within a "cult" or religious sect with schooling which does not approximate public education today; a youth raised in another country with little or no training in reading, speaking or writing English; a youth who has attended a Mennonite or Amish school for some years.
- (7) Students who are sensorally handicapped. Hearing Impaired. For the purposes of this Institute, the definition for a primary disability in hearing will be a loss of 26 or more decibels in one ear or both ears. This indicates that a youth needs help from a professional and is considered a primary impairment by audiologists. Visually Impaired. The definition of a visual impairment which may necessitate special programming is visual acuity less than 20/70 in the better eye with correction, or evidence of chronic narrow field of vision or any other chronic visual problems other than those that have been corrected with glasses or contact lens.
- (8) Students who are physically handicapped. This category would include any student with a physical impairment (e.g., heart ailment, orthopedic handicap) which has resulted in the student not being able to participate in regular school programming and activities.

In summary, students with no deficits and students whose deficits might be linked to some other disability or disadvantage will not be members of the LD population as determined by the Validation Team of the Institute.

APPENDIX B

INSTRUCTIONS FOR FILLING THIS OUT

PLEASE READ BEFORE STARTING

This survey is being conducted under guidelines established by the University of Kansas. By cooperating, you will help provide answers to important questions; however, your participation is strictly voluntary. No one will read this except those who are working to collect information for this survey; your name will not be associated with your answers in any public or private report of the results. By returning this survey, you are saying that you are willing to help us in this study.

There are several types of questions in this survey. Please answer each question as shown in the following examples. If you don't know the answer to a question, or don't wish to answer a question, just leave the answer blank and move on to the next question.

Type 1

This type of question asks you to fill in a blank. Just put the answer in the blank which is located on the right side of the page.

Example question and answer

How many hours a day do you spend watching T.V.? 3 hours

Type 2

This type of question asks you to select one of several answers as best fitting what is happening in your life. There will be only one number to the right of each possible answer. Please circle the number next to the one answer that best fits your situation.

Example question and answer

How happy are you with the weather today?

- Very unhappy 1
- Unhappy ②
- Neither happy nor unhappy 3
- Happy 4
- Very happy 5

Type 3

This type of question will have two or more numbers to the right of each answer. Circle one number for each of your answers.

Example questions and answers

1. What do you do in your free time? No Yes
- Participate in sports ① 2
 - Do crafts 1 ②
 - Play an instrument 1 ②

2. How often do you engage in the following activities?

	Never	Once a year	Once a month	Once a week	Once a day
Participate in sports	0	①	2	3	4
Do workshop activities	0	1	2	③	4
Play cards	0	1	2	3	④

PLEASE READ AND SIGN THE CONSENT FORM

1. What is today's date? _____/_____/_____
mo. day yr.

2. What is your birthdate? _____/_____/_____
mo. day yr.

3. How old are you? _____ yrs.

4. What is your height? _____ ft. _____ in.

5. What is your weight? _____ lbs.

6. What is your sex? Male 1
Female 2

7. What is your race?
White 1
Black 2
Spanish American 3
Native American 4
Asian 5
Other
(explain: _____) 8

8. When you were in high school, what was your father's job?
(e.g., farmer, teacher, business executive, welder, lawyer, etc.)

9. What was your mother's job when you were in high school?
(e.g., secretary, doctor, housewife, lawyer, etc.)

10. What was the highest level of education your father finished?
Grade school 1
Some high school 2
High school diploma or GED 3
Trade or vocational school certificate 4
Some college 5
College degree 6
Graduate or professional degree 7

11. What was the highest level of education your mother finished?
Grade school 1
Some high school 2
High school diploma or GED 3
Trade or vocational school certificate 4
Some college 5
College degree 6
Graduate or professional degree 7

12. What is the last grade (1-12) you finished in school? Grade _____

13. How long has it been since you left high school? months years

14. Which degree(s) do you have? No Yes

- None 1 2
- G.E.D. Certificate 1 2
- Occupational certificate
(in what? _____) 1 2
- High School diploma 1 2
- Associate degree 1 2
- Bachelor's degree 1 2
- Master's degree 1 2
- Ph.D., M.D., or
Law degree 1 2
- Other (Please explain:
_____) 1 2

15. a. Are you working now? No 1
Yes 2

b. If yes, describe each job that you have, how long you've been on each job, and the number of hours per week that you work at each job.

<u>Job Title</u>	<u>What work do you do?</u>	<u>How many months on this job?</u>	<u>Number of hours per week</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

c. How did you first hear about the job you have now? No Yes

- Friend 1 2
- Relative 1 2
- Employment service 1 2
- Want ads 1 2
- Other (explain: _____) 1 2
- _____)

YOUNG ADULT

16. Please list all the full-time (40 hrs./week) jobs you have had since leaving high school.
 (Put a check mark (✓) in the box if the job was only for the summer.)

<u>Full-time job Title</u>	<u>What work did you do?</u>	<u>How long did you work there?</u>	<u>Summer only</u>
1.			<input type="checkbox"/>
2.			<input type="checkbox"/>
3.			<input type="checkbox"/>
4.			<input type="checkbox"/>
5.			<input type="checkbox"/>
6.			<input type="checkbox"/>
7.			<input type="checkbox"/>
8.			<input type="checkbox"/>

18. What is the total amount of time you have been unemployed since leaving school?

_____ years _____ months

19. What is the total amount of time you were unemployed and not seeking work?

_____ years _____ months

20. How happy are you with your current employment/unemployment situation?

Very unhappy 1
 Unhappy 2
 Slightly unhappy 3
 Neither happy nor unhappy 4
 Slightly happy 5
 Happy 6
 Very happy 7

21. Circle the number next to the amount that best shows the total amount of money you earned this year (before taxes). Do not include money earned by other family members.

I have no income 0
 \$1 - \$5,000 1
 \$5,001 - \$7,500 2
 \$7,501 - \$10,000 3
 \$10,001 - \$15,000 4
 \$15,001 - \$20,000 5
 \$20,001 - \$25,000 6
 over \$25,000 7

YOUNG ADULT

22. Please circle the number next to the amount that best shows the total amount of money your immediate family earns in one year. Do not include your income.

- There is no other income than mine . . . 0
- \$1 - \$5,000 1
- \$5,001 - \$7,500 2
- \$7,501 - \$10,000 3
- \$10,001 - \$15,000 4
- \$15,001 - \$20,000 5
- \$20,001 - \$25,000 6
- over \$25,000 7
- I don't know 9

23. a. Circle the number next to the category that best shows your marital status.

- Single 1
- Married 2
- Widowed 3
- Separated 4
- Divorced 5

b. If you are married, how long have you been married to your current spouse?

_____ years

24. How many times have you been married including your current marriage?

_____ times

25. How happy are you with your current marriage situation?

- Very unhappy 1
- Unhappy 2
- Slightly unhappy 3
- Neither happy nor unhappy 4
- Slightly happy 5
- Happy 6
- Very happy 7

26. How many children do you have, including stepchildren? _____ children

27. What are the ages of these children?

- | | <u>Age</u> |
|-----------|----------------|
| 1st child | _____ yrs. old |
| 2nd child | _____ yrs. old |
| 3rd child | _____ yrs. old |
| 4th child | _____ yrs. old |
| 5th child | _____ yrs. old |

28. How many different towns have you lived in since high school? _____ towns

29. Do you live in the same town that your parents live in? No1
Yes2

30. Circle one number next to the statement that fits you best.

- Living alone, by yourself 1
- Living alone with child/children 2
- Living with friends/roommates 3
- Living with partner-as a couple
(not married). 4
- Living with spouse (no children) 5
- Living with spouse and
child/children 6
- Living with relatives (parents,
uncles, aunts, etc.) 7
- Other (Explain: _____) 8

31. How often do you see or talk with your close relatives (parents, brothers, and sisters)?

- Not at all 0
- Yearly 1
- Monthly 2
- Weekly 3
- Daily 4

32. How happy are you with the contacts you have with your relatives?

- Very unhappy 1
- Unhappy 2
- Slightly unhappy 3
- Neither happy nor unhappy 4
- Slightly happy 5
- Happy 6
- Very happy 7

33. How many close friends do you have that you can talk to about things that are very important to you?

_____ close friends

34. How many friends do you have that you can go places with or share activities with?

_____ friends

35. How active were you in each of the following types of activities last year? (Please circle a number for each activity. For example, a "1" might indicate paying dues or donations. A "2" or "3" might indicate going to some meetings. A "4" or "5" might indicate going regularly to meetings and helping in activities. A "6" would indicate always going to meetings and helping in all club activities.)

	Not Active		Moderately Active			Highly Active	
a. Church/Religious activities	0	1	2	3	4	5	6
b. Social or fraternal activities (e.g., Elks, Masons, etc.)	0	1	2	3	4	5	6
c. Political activities (e.g., supporting candidates, running for office)	0	1	2	3	4	5	6
d. Community service activities (e.g., volunteer work)	0	1	2	3	4	5	6
e. Recreational activities (e.g., bowling leagues)	0	1	2	3	4	5	6
f. Professional organization activities	0	1	2	3	4	5	6
g. Labor Union activities	0	1	2	3	4	5	6

36. To how many clubs or groups in your local community do you belong?
_____ groups

37. About how often do you drink alcoholic beverages?

- Not at all 0
- Once a month 1
- Once a week 2
- 2 - 3 times a week 3
- Once a day 4
- 2 - 3 times a day 5
- More than 3 times a day . . . 6

38. About how often do you use any kind of drugs other than alcohol (e.g.,
medicine a medical doctor told you to take, over the counter, recreational)?

- Not at all 0
- A couple times a year when I'm sick . . . 1
- Once a month 2
- Once a week 3
- 2 - 3 times a week 4
- Once a day 5
- 2 - 3 times a day 6
- More than 3 times a day 7

YOUNG ADULT

39. a. Are you currently using medicine a medical doctor told you to take?
No 1
Yes 2

b. If yes, what medicine? _____

40. How many cigarettes do you smoke a day? _____ cigarettes

41. How many times have you been arrested? _____ times

42. Have you ever been convicted of a crime by a court of law?
No 1
Yes 2

43. Have you served time in jail after you have been convicted of a crime?
No 1
Yes 2

44. When you were in junior or senior high school did you take part in any special services offered by the school (tutoring, special classes, etc.)?
No 1
Yes 2

a. If yes, what were the services? _____

b. If yes, how happy are you with the help you received?

Very unhappy 1
Unhappy 2
Slightly unhappy 3
Neither happy nor unhappy 4
Slightly happy 5
Happy 6
Very happy 7

c. If no, do you wish you had received special help? No 1
Yes 2

45. How happy are you with the education you received in junior and senior high school?
Very unhappy 1
Unhappy 2
Slightly unhappy 3
Neither happy nor unhappy 4
Slightly happy 5
Happy 6
Very happy 7

46. What is the one thing you liked best about junior or senior high school?

47. What is the one thing you disliked the most about junior or senior high school?

48. a. Since leaving high school have you received any special help in activities that require skills in reading, writing, and math?

No 1
 Yes 2

b. If yes, what was this help?

49. Since leaving high school how much help have you received from each of the following?

	<u>No help</u>		<u>Moderate Help</u>			<u>A great deal of help</u>	
a. Parents and relatives	0	1	2	3	4	5	6
b. Neighbors	0	1	2	3	4	5	6
c. Spouse or housemate	0	1	2	3	4	5	6
d. Friends	0	1	2	3	4	5	6
e. Professional Counselor (e.g., psychologist, social worker, etc.)	0	1	2	3	4	5	6
f. Church groups	0	1	2	3	4	5	6
g. Community service agencies (welfare, health, etc.)	0	1	2	3	4	5	6
h. Fellow workers	0	1	2	3	4	5	6
i. Social clubs	0	1	2	3	4	5	6

50. a. Are there skills you wish you could have learned in high school?

No 1
 Yes 2

b. If yes, what are they?

51. a. Do you have any plans for future educational activities?

No 1
 Yes 2

b. If yes, what are they?

Job training (e.g., CETA)	1
Trade school	2
Junior college	3
College	4
Advanced professional courses (e.g., correspondence course, workshops)	5
Graduate work	6

THANK YOU SO MUCH FOR YOUR HELP!

Please mail this back to us as soon as possible in the envelope provided along with the signed consent form.