

## II—THE VOCATIONAL ADJUSTMENT OF GRADUATES OF TWO SHELTERED WORKSHOPS FOR THE MENTALLY RETARDED

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The present study is part of a follow-up of the graduates of two sheltered workshops for the moderately retarded in Israel, Gil Tushia and Achikam. Gil Tushia was the first of its kind in Israel and was initiated and developed by Akim, a parent voluntary organisation, as a model project in 1961. As a result of the success of this initial project, there are over 30 sheltered workshops for the mentally retarded in Israel. The sheltered workshop programme is based on a negation of the idea that the mentally retarded, even those with a limited degree of retardation, must spend their entire life in a sheltered institution. With this goal in mind, the workshops, in addition to providing terminal employment, also attempt to rehabilitate mentally retarded clients displaying potential for successful employment in the open market. The programme is aimed at providing the mentally retarded clients with the social and vocational skills necessary to achieve at least partial independence and, wherever possible, to attain an independent arrangement with the community.

The purpose of this study is to determine the vocational status of the graduates of two of these workshops and to assess some of the variables which constitute barriers to successful occupational adjustment. More specifically, the study was aimed at answering the following questions: how do the mentally retarded fare as employees, types of occupation, salaries, social integration at place of work, work adjustment, and which variables are potential predictors for vocational success.

### METHOD

#### Subjects

The subjects for the study were 210 graduates, 118 male and 92 female, who had passed through Gil Tushia and Achikam between the years 1961-71. The mean IQ for the men was 57.5 on a Stanford Binet with a range of 30—85; the mean IQ for the females was 58.2 on the Stanford Binet Scale with a range of 21—84. The mean age for males was 21.6 with a range of 17—50 and for females 22 with a range of 17—36.

#### Procedure

The study was based on idiographic data from the personal files of each graduate, and interviews with parents and employers of the graduates where these were possible. Three questionnaires were drawn up: one for idiographic data, one for parents, and one for the employers. They were drawn up with the view to answering the research questions and were revised after being pre-tested on a sample of parents and employers. The interviews were carried out by psychology students trained for the purpose.

Letters were sent to the parents prior to the interview requesting their cooperation and asking them to reply as to date and time when it would be convenient to interview them. Many parents did not reply and in these cases permission to interview was obtained at the time of the interview. If a parent refused no pressure was applied.

The employers were contacted by phone and appointments were made for the interview. No employer was interviewed if the parents objected. If the employer did not know that the worker was retarded, the real purpose of the interview was hidden and the survey was explained as being a follow-up of graduates from normal schools.

## RESULTS AND DISCUSSION

### Status of the Graduates in the Community

On completion of the study the status of the 210 graduates is presented in Table 1.

**TABLE 1**  
**Status of Graduates at Time of Study**

Status	Male	Female	Total	Mean IQ
Employed	59	3	62	54
Unemployed at home	33	10	43	50
Institutionalised	18	15	33	50
Transferred to other workshops	18	13	33	45
Deceased	1	3	4	—
Refused to be interviewed	2	2	4	—
Not traced	11	20	31	56
Total			210	

The final sample consisted of 138 subjects for whom questionnaires were filled out. The IQ distribution for these subjects is presented in Table 2. There was no significant difference in mean IQ scores between the three groups, employed, unemployed at home, and institutionalized. As was confirmed in the A.I.D. analyses (Fig. 1, see section on Vocational Adjustment) IQ appears to have no influence on the status of the graduates.

**TABLE 2**  
**I.Q. Frequency Distribution for Final Sample**

I.Q. Level

	Less than 40	40-45	46-50	51-55	56-60	61-65	66-70	70+	Missing Data	Total
N	11	13	23	17	17	12	7	15	21	138
%	8.1	10.4	18.1	12.4	12.4	9.4	5.5	11.1	16.1	100

The subjects who were referred to other sheltered workshops were not included as they did not fit the criteria of having graduated from sheltered workshops. An additional 39 subjects were not traced, or were deceased, or the parents refused to co-operate. Out of the 138 subjects, 62 (48%) were employed in the open job market. In all probability the total number of mentally retarded employed is higher as there is good reason to assume that the majority of the 31 subjects who could not be located are in the community and probably employed. Most of these clients were taken out of the workshops by their parents and there is no information that would indicate institutionalization.

Out of the 43 unemployed, 10 are married females and although their status is that of housewife they were classified as unemployed because they were not fulfilling this function independently but were dependent on help from their families. Close to 61% of the unemployed group had never been employed since leaving the workshop, while 12 had had between one and three jobs.

Only 33 out of 210 graduates have been institutionalized, and of this group only 4 had ever been employed. If we assume that the 33 subjects who were not located are in the community, then close to 85% of the 210 graduates are living in the community, employed, in industry and in sheltered workshops or at home doing nothing. This fact has important connotations for planning and providing services to this population in Israel.

#### Information on Employed Graduates

The distribution of IQ among the employed graduates is presented in Table 3.

**TABLE 3**  
**I.Q. Frequency Distribution for Employed Graduates**

I.Q. Level

	Less than 40	40-45	46-50	51-55	56-60	61-65	66+	Total
N	2	4	16	10	8	10	8	58
%	3	7	28	17	14	17	14	100

The majority of the employed graduates (51%) were in the moderately retarded IQ range.

Of the employed mentally retarded only 22.5% are employed in skilled or semi-skilled occupations like lathe operators, metal workers, skilled seamstresses and printers. The majority are employed in unskilled and semi-skilled occupations like watching production line machines and assembly line work.

Most of these jobs require only minimal training and demonstration until the mentally retarded is able to continue alone. Some of the mentally retarded were trained for these jobs while employed in the workshop where the factories supplied the workshops with sub-contract work. This type of arrangement of placing a client in a factory for a job which he has been trained for, should be expanded so as to enlarge the placement market for the mentally retarded. The other employed clients are working in personal and domestic service such as delivery, household help,

laundries, in the food packing and processing area such as preparing and serving food in cafeterias and packaging food products for marketing and in the agricultural gardening area.

These findings corroborate the results of other studies in the U.S. (e.g., Channing, 1932, and Bobroff, 1956) which have found that mentally retarded clients tend to cluster in positions below the skilled category. As was found in Channing's study, intelligence does not seem to influence the type of job held. There was little difference in the type of occupation between those clients with an IQ of 40, and those with an IQ of 60.

The employed mentally retarded received a mean monthly wage of between 300 to 400 Israeli pounds with a range of 100—600. The mean is lower than the national income mean compared with the statistics for 1972 in the Government Monthly Statistical Report. It should be mentioned, however, that these statistics include all types of workers in the specific occupational grouping, and perhaps if the mentally retarded were compared with other workers employed in similar type work, the picture would be different. Unfortunately this information was not available. However, the figures presented provide some information concerning the ability of the mentally retarded to become economically independent. If we take the minimum wage level requested by the Israeli trade unions we find that 50% of the mentally retarded are able to maintain themselves economically, thus at least 50% of our employed mentally retarded would need additional financial assistance in order to live independently in the community.

The IQ level of those earning sufficient to maintain themselves economically ranged from between 40—80 with the majority in the moderately retarded 40—55 IQ range.

### **Employers' Perception of their Retarded Employees**

When questioned about the mentally retarded workers' abilities during the initial period on the job, the employers responded that more than 90% of the workers had some liability. Most frequently listed was the worker's inability to understand and grasp quickly the basic requirements of the job, followed by lack of discipline and poor social skills. The workers' inability to understand quickly is probably more a function of their retardation than of their training. Yet, the fact that employers thought this to be a problem for 47.8% of the retarded workers indicates that placement techniques could be improved. The professional rehabilitation worker in talking with prospect employers should stress that retarded individuals (as compared to other workers) need a longer period of time to adjust to a new task, more initial help and supervision, and more repetition and concrete examples to perform the job properly. But with time they eventually grasp the task and then adequately fulfil the requirements of the job. As regards the worker problems in discipline and social skills, one implication is that rehabilitation personnel should establish more stringent criteria for placement in the open job market.

The employers were asked to rate the mentally retarded workers in comparison with other workers (see Table 4).

In the areas of accuracy, speed, output and standard of work they rated only between 45% and 55% of the retarded workers as being similar to or better than other employees. But in terms of punctuality, physical strength and work attendance the employers rated between 70% and 86% of the retarded workers as being similar to or better than other employees. In the area of accuracy, graduates with IQs above 56 were rated proportionately better than normal workers, as compared to graduates with IQs in the 40—55 range. In the areas of speed, output, standard of work and

**TABLE 4**  
**Comparison of M.R. Workers with other Workers**

ACTIVITY	Better than %	Like others %	A little less %	Much less than others %
Accuracy in work	24.4	24.4	31.1	20.0
Speed	17.8	26.7	26.7	28.9
Output	11.4	40.9	27.3	20.5
Standard of work	20.0	28.9	40.0	11.1
Punctuality	51.1	28.9	4.4	15.6
Physical strength	13.3	57.8	13.3	15.6
Work attendance	44.4	42.2	4.4	8.9

physical strength, there were no differences between the higher and lower IQ graduates. In the areas of work attendance the graduates in the 40—50 IQ range received proportionately higher evaluations than the graduates in the 55—75 IQ range. These results are consistent with that of other studies, in which handicapped individuals in general were found to be more punctual and to have better attendance records. From the employers' point of view, clearly the greatest benefit in hiring retarded individuals is that they are highly motivated and willing to work.

After the retarded individuals had been employed for a period of time the employers rated 26% as so-so, and 65% as at least satisfactory. Only 8.9% were perceived as being unsatisfactory. The employers also expressed willingness to hire other retarded persons. Here too there was no significant difference between the higher and low IQ groups.

Employers were asked to evaluate the social integration of the mentally retarded workers at work.

The answers indicate that the mentally retarded worker is not generally isolated socially at work, but there are close to 20% who do not interact with the other workers at all. It was thought that perhaps negative attitudes of the other workers might be the reason for this. However, it was found that 35% of the mentally retarded are treated as equals by their fellow workers, 44% are helped and encouraged by their fellow workers, 13.4% are pitied, and only 4.4% are rejected by their fellow workers. It thus appears that the majority of workers accept the mentally retarded and display positive attitudes towards them. The lack of interaction may be due to lack of social skills of some of the mentally retarded graduates.

#### **Significant Variables in Vocational Adjustment**

The study furthermore examined the relationship between selected independent variables, client, family, workshop, and community and social variables to the dependent variable vocational adjustment. The variables were selected on an *a priori*

basis after a review of the literature. Selection was also aided by the use of a procedure outlined by Reisman (1964) where variables should be (a) measurable, (b) should be relatively fixed and constant, (c) should have functional relevance, (d) should be minimal in number. The variables selected as independent variables were:

- (a) **Subject Variables:** Sex, age, IQ, ethnic group motor problems, health problems, independence, talkativeness, nervousness, happiness, cautiousness, depression, non-communicativeness.
- (b) **Family Variables:** Father's education, family income, father's occupation.
- (c) **Workshop Variables:** Time in workshop.
- (d) **Community and Social Variables:** Friends, leisure-time companions.

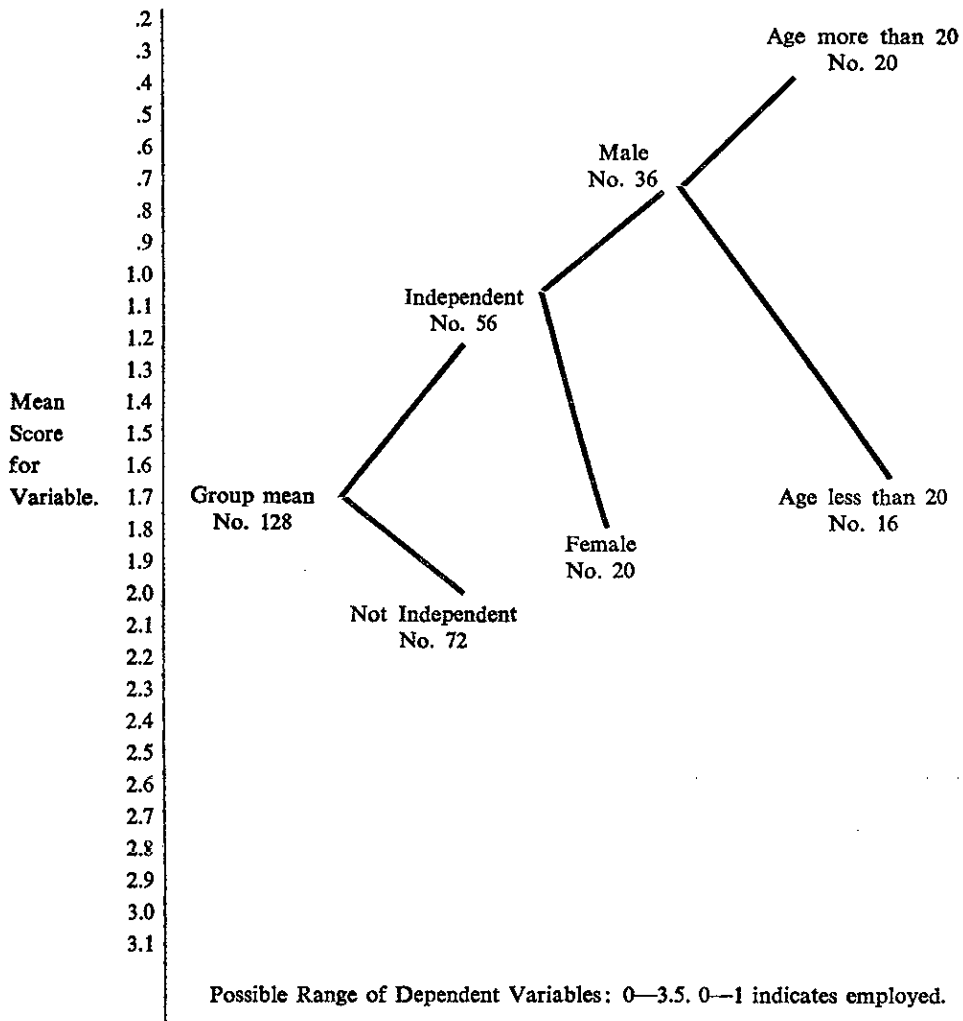
The dependent variable was employed—not employed. As many of the variables listed are interrelated, the analyses were conducted not only to determine significant differences between the independent variables, but also to detect interaction effects, to determine if some variables masked the effects of others. To achieve this the Automatic Interaction Detector (AID) computer programme developed by Sonquist, Morgan (1964) was used. This programme employs a non-symmetrical branching process based on analyses of variance techniques to sub-divide the sample into a series of sub-groups which maximally account for the variance in the dependent variable. The assumptions of linearity and additivity inherent in multiple regression techniques are not required which make this technique suitable for this type of study. The output is presented as a series of characteristic tree patterns (see Fig. 1).

As can be seen from Figure 1, the tree pattern illustrates a complex interaction between independence, sex, age, in respect to being employed. Independence was defined by the parents' perception of the mentally retarded's independence in daily living and ability to fend for himself. Few studies have mentioned or found this variable to be significant. Perhaps it is included in the general category of personality (Warren, 1961; Phelps, 1965), or it is interpreted as being indicative of social competence and ability to get on with people. Dinger (1961) found that vocational success was more highly correlated with personal characteristics than to IQ.

If a graduate was rated as being independent, then the probability of employment was higher. This, however, was only relevant for males. A female graduate deemed independent had a lower probability for employment, i.e., being a female is a barrier to employment which cannot be surmounted by being independent. This result and a closer look at the data indicate the need for more intensive placement procedures in the case of female graduates, especially counselling with the parents. A large number of parents were very reluctant to allow their daughters to go out and find employment in the open job market. This reluctance was a result of a fear that they would be sexually exploited and get into "bad company." This necessitates the need for an adequate follow-up system which would allay the fears of these parents, and provide the necessary supervision to prevent as far as possible harmful influences on female graduates.

The analyses also indicated an additional barrier for male graduates' age. A male graduate deemed independent but under the age of 20 had a lower probability for employment. Dubrow (1960) found similar results in his study using competitive employment as the criteria, and found that two of the most favourable trainee characteristics were being a male and over 22 years of age. The results of the AID analysis show that a male graduate independent and over the age of 20 had the highest probability of being employed. For females, sex was a barrier and indicated the need for more community services, in order to persuade parents to allow their daughters to go out and find employment in the open job market.

**Fig. 1. A.I.D. Predicting to Employment**  
**All variables entered as predictors**



### SUMMARY

Two hundred and ten graduates of two sheltered workshops were followed up and their vocational status evaluated. Out of the 210, 138 were included in the final sample. Of these, 62 were employed in the open job market, mainly in semi-skilled and unskilled occupations. Close to 50% were earning wages that would allow them economic independence. The majority of employers were satisfied with their retarded employees and were willing to hire others, and most of the employed mentally retarded achieve a reasonable level of social integration at their place of work. An A.I.D. analysis indicated that a male over the age of 20, deemed independent, has the best likelihood of being employed. Female graduates were less likely to be

employed, mainly because of parents' reluctance to allow them to find employment in the open job market, and lack of suitable follow-up and supervisory services. The study indicates that the sheltered workshops programme is fairly successful in vocationally rehabilitating the mentally retarded, but more work is needed to overcome the problems mentioned in the study. Not all the mentally retarded clients in workshops will eventually find employment in the open job market, but the improvement of services and training programmes will certainly result in more successful vocationally rehabilitated mentally retarded clients.

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