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## LIFE ADJUSTMENT OF SECONDARY SCHOOL GRADUATES WITH DISABILITIES IN TAIWAN: A FOLLOW-UP STUDY\*

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This study was to follow up the secondary school graduates of the special classes for the disabled in terms of current status and life adjustment. Subjects were graduates of 1993-96, comprised of the mentally retarded, the visually impaired, the hearing impaired, the physically disabled, the multiply disabled, and the others. They were derived from 126 schools (including 8 special schools) from 21 counties/cities in the Taiwan area. As a result, 3,277 subjects (93.64% of the total population) were derived, among them the majority was the retarded (2,124, accounted for 65.8%), and were interviewed by their previous home class teachers. Subjects or their parents were asked to fill up a questionnaire during or after the interview.

The major findings were as follows: (1) in general, while the majority of the subjects were under 20 years of age for the time being, 43.4% of them were still in school, 30.5% had a full-time job, 18.9% stayed at home, 5.3% were receiving vocational training, the rest (2.0%) were unanswered; (2) the subjects' living expenses mostly depended on their parents; (3) compared to clothing, accommodation and transportation, food clearly consumed most of their expenditure, whereas mobility was the one most depending on others; (4) while the mentally retarded and the multiply disabled had more sociability difficulties than others, it was only the sociability of the retarded, rather than other categories of disabilities, varied with levels of disabilities, the severer the worse; (5) in general, the subjects indicated a nearly "average" degree of life satisfaction; however, the severely disabled showed lower degree of satisfaction than the milder ones; contrary to sociability, the life satisfaction of the retarded was not inferior to others; (6) the greatest need in the present life of the subjects was "finding a job", followed by "continued learning or training" and "a better quality of life". It is strongly suggested that, among others, independent living skills training be enhanced in schooling.

Key words: Students with disabilities, special class, life adjustment, life satisfaction, follow-up study

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Recently the government of all levels in Taiwan, R.O.C. has placed a priority on development of special education. One of the most visible outcomes is the expansion of special schools, self-contained classes, and resource rooms that accommodate more special needs students. Efforts, however, have been made mainly toward developments of programs for school-age children. There appears to be a dearth of literature on the follow-up studies of those dropouts and post-secondary individuals with special needs. Efforts in this field are crucial and of significance because (a) we are hence able to evaluate the outcome of special education by way of the follow-up studies; (b) from the perspectives of “life-long education” and “career development”, the education, living and employment of disabled population deserved to be well cared for; (c) in consideration of the development of human resources, it could be a total waste of manpower provided that they end up in unemployment after they finish their school education.

To date there involved only a few studies concerning the follow-through of high school graduates with disabilities in Taiwan. Chen (1983) investigated the employment status of MR students after they were graduated from their self-contained special classes. He found that 60% of the subjects were already employed, 20% had been employed but currently unemployed, and 19% had never been employed before. Five years later, Chen (1988) examined the same topic in Taipei City and had likely results, with 67% employed.

Hsu and Hsiao (1985) surveyed the life adjustment of adolescents with mental retardation after their junior high school education, revealing that 66.9% of their subjects were employed, 18.4% had been employed, and another 14.7% had never been employed. Similarly, Lin and Kuo (1985) found 72.8% of mentally retarded adolescents in Kaohsiung City were employed after they completed their junior high schooling, 11.4% were receiving senior high school education, 82% having a part-time job, and 7.6% were none of the above.

In a survey on the career development and adjustment of post junior high adolescents with mental retardation, Lin (1990) had the following major findings: (a) of all the subjects, the majority were employed (55.4%), 21.5% entering senior high school, 17.6% goofing off, and 5.5% receiving job training programs; (b) in terms of levels, the borderliners chose either senior high school education (41.7%) or employment (7%), the EMRs were mainly employed (67.6%), whereas 39.3% of TMRs (including SMR) were employed and another 38.2% were jobless; (c) of all the adolescents surveyed, 30.0% were satisfied with their current status, 37.1% fairly satisfied, and 23.5% dissatisfied; (d) among those employed, the vast majority were either semi-skilled or unskilled, such as telephone set assembly, beauty parlor, household, and food processing.

Lin, Chan, Wu, Wang, Hung, and Chen (1994) investigated adults (ages between 17 and 30) who received the Disability Certificate and found the mentally retarded/multiply

disabled who received school education were better off in life adjustment and employment status than their peers without education. School education, in general, had a positive impact on daily living of individuals with disabilities, but the impact was not as high as expected.

Considering the above findings, there calls for an expansion of the population targeted to be involved in the follow-up study (not limited to the mentally retarded) as well as systemization in the way the study is undertaken. More recently, Wu, Chiu, and Wu (1997) followed up the secondary school graduates of the special classes for the disabled in terms of current status and employment conditions. Subjects were graduates of 1993-96, comprised of the mentally retarded, the visually impaired, the hearing impaired, the physically disabled, and the multiply disabled. They were derived from 126 schools (including 8 special schools) from 21 counties/cities in the Taiwan area. As a result, 3,277 subjects (93.64% of the total population) were derived, among them the majority were the retarded (2,124, accounted for 65.8%), and were interviewed by their previous home class teachers. Subjects or their parents were asked to fill up a questionnaire during or after the interview. It was found that: (1) in terms of vocational choice, the major considerations were "personal ability", "job location", and "personal interest"; (2) for those who had a job, the major way of obtaining a job was through "family members or relatives' recommendation", however, their jobs were mainly low-

skilled or labor-focused, significantly inferior to regular workers; nevertheless, they showed moderate job satisfaction; (3) for those jobless subjects (excluding those in school and vocational training), the main reasons without a job were "lack of job skills" and "being rejected because of disability", most of them wished to receive vocational training and/or find a job in the near future. It was concluded that although the students with disabilities were in general cared and had learned a lot of living skills in school years, the social support after their graduation was not sufficient. There is a great need of improving the mobility facilities and the employment conditions.

It was the purpose of this study to further analyze the follow-up data of Wu et al. (1997) in terms of the current status, life adjustment, life satisfaction, and greatest need of the disabled adolescents graduated either from junior high or senior high school in 1993-96.

## METHOD

### Subjects

Participants consisted of disabled adolescents who completed their education in 1993-96 in special schools and self-contained classes or resource rooms of regular schools. Specifically, they were graduates of (a) special classes for mentally retarded, hearing impaired and physically disabled students, and (b) special schools for mentally retarded, hearing impaired, visually impaired, physically disabled, and multiply disabled students.

Therefore, there involved five disability categories: mental retardation, visual impairments, hearing impairments, physical disabled, and multiple disabilities. In addition, there was the others without specification. They all met the definition and classification issued by the

special education laws. The target population consisted of 3,446, of whom 3,227 responded to and completed our survey questionnaire and therefore served as our subjects. The return rate was 93.64% (see Table 1).

Table 1 Number of Schools and Students Participated in this Study

Sources	Number of Units	Number of Students
Regular schools	118	2,424
Special schools	8	803
Total	126	3,227

Note: a. Regular schools were surveyed only if they have special classes and/or resource classroom programs.

b. The return rate is 93.64%

Table 2 further indicated the disability categories and levels of participants. Of all the 3,227 subjects, the majority were mentally retarded (2,124, or 65.8%), followed by multiply disabled (429, or 13.3%), hearing impaired (299, or 9.3%), other disabilities (114, or 3.5%), and least visually impaired (55, or 1.7%). With regard to levels of disabilities, 1,098 participants (34.0%) were moderately

disabled, 893 subjects (27.7%) were mildly disabled, 828 (25.6%) severely impaired, and 215 (6.7%) profoundly. To take consideration of both the category and level, it is the moderate mental retardation that accounts for the greatest portion (831, or 25.8%), with severe visual impairment the least (2, or 0.1%).

Table 2 Numbers of Participants by Categories and Levels of Disabilities

Categories	Unreturned	Mild	Moderate	Severe	Profound	Total
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Unreturned	37 (1.1)	2 ( 0.1)	6 ( 0.2)	1 ( 0.0)	1 (0.0)	47 ( 1.5)
Mental R.	118 (3.7)	730 (22.6)	831 (25.8)	394 (12.2)	51 (1.6)	2,124 ( 65.8)
Visual I.	0 (0.0)	3 ( 0.1)	14 ( 0.4)	36 ( 1.1)	2 (0.1)	55 ( 1.7)
Hearing I.	6 (0.2)	16 ( 0.5)	41 ( 1.3)	186 ( 5.8)	50 (1.5)	299 ( 9.3)
Physical D.	3 (0.1)	41 ( 1.3)	76 ( 2.4)	35 ( 1.1)	4 (0.1)	159 ( 4.9)
Multiple D.	17 (0.5)	33 ( 1.0)	107 ( 3.3)	167 ( 5.2)	105 (3.3)	429 ( 13.3)
Others	12 (0.4)	68 ( 2.1)	23 ( 0.7)	9 ( 0.3)	2 (0.1)	114 ( 3.5)
Total	193 (6.0)	893 (27.7)	1,098 (34.0)	828 (25.6)	215 (6.7)	3,227 (100.0)

### Instruments

To collect data, two researcher-designed instruments were used: (a) Questionnaire of Graduates from Self-contained Class/ Resource Rooms of Junior High School in Taiwan, and (b) Questionnaire of Graduates from Special school in Taiwan. Both consisted of the following components:

(1) Personal information: This information encompasses name, gender, date of birth, date of graduation, Certificate of Disability, current status (at school, at work, at home, or hospitalized), address and phone number.

(2) Life adjustment: It includes marital status, financial sources, health condition, degree of independent living, interpersonal relationship, leisure and recreation, and needed assistance.

(3) Learning features: It involves major area of learning, learning motivation, willingness to receive more education, reading interest, and needed assistance.

(4) Vocational status: It consists of job training, current status of employment, type of job and payment, adjustment, reasons for being unemployed, willingness to participate in job training programs, and needed assistance.

(5) Feedback to special education: This area incorporates the type of special education accomplished, outcome, strengths and weaknesses, and suggestions.

This paper addresses to (1) and (2) only.

### Procedure

The study was implemented by way of census. To begin with, the written consent was obtained from the participating schools, from which the rosters of graduates of 1993-

96 were provided. A pre-administration of survey was developed in each region. Interview was performed by the graduate's previous home class teacher, who made a phone call to gain parental consent and make sure that the subject was available and willing to accept the interview. In the case of unavailability, a written survey by mail was performed in stead (which accounted approximately for 1/3 of the total data). Where the subject had difficulty in taking the questionnaire, parents or guardians took his or her place.

### Data Analysis

Obtained data were analyzed in terms of chi-square and analysis of variance. Variables consisted of categories (6) and levels (4) of disabilities.

## RESULTS AND DISCUSSION

### Current Status

Table 3 indicated subjects' current status by categories. The results were as follows:

(a) Overall, most of our subjects were at school (43.4%), followed by those at work (30.5%) and at home (19.0%), least at training programs (5.3%).

(b) Considering disability categories, the majority of subjects with mental retardation, visual impairments, hearing impairments, physical disabilities and multiple disabilities were at school, whereas most of adolescents with the other disabilities were at work. Additionally, in the hearing group, the number of those who were at school did not differ significantly from those at work.

Table 3 Categories and Current Status of the Target Population

Categories	Unreturned	Mental R.	Visual I.	Hearing I.	Physical D.	Multiple D.	Others	Total
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Unreturned	3 (6.4)	50 (2.4)	0 (0.0)	3 (1.0)	2 (1.3)	8 (9.9)	0 (0.0)	66 (2.0)
At Home	2 ( 4.2)	444 (20.9)	0 ( 0.0)	0 ( 0.0)	37 (23.2)	122 (28.4)	4 ( 3.5)	609 ( 18.9)
At School	20 (42.6)	876 (41.2)	50 (90.9)	147 (49.2)	78 (49.1)	190 (44.3)	38 (33.3)	1399 ( 43.3)
At training	0 ( 0.0)	121 ( 5.7)	1 ( 1.8)	9 ( 3.0)	6 ( 3.8)	28 ( 6.5)	5 ( 4.4)	170 ( 5.3)
At Work	22 (46.8)	633 (29.8)	4 ( 7.3)	140 (46.8)	36 (22.6)	81 (18.9)	67 (58.8)	983 ( 30.5)
Total	47 ( 1.5)	2,124 (65.8)	55 ( 1.7)	299 ( 9.3)	159 ( 4.9)	429 (13.3)	114 ( 3.5)	3,227 (100.0)

With regard to disability levels, except for the mild group, of whom those who were at work (46.7%) outnumbered those at school (41.9%), the majority was at school (46.6% for the moderate group, 41.2% for the severe, and 37.2% for the profound). While less than 10% of the mild group stayed at home, more than 20% of the moderate, severe, and profound were at home.

As the study was undertaken by way of census, the demographics of subjects (disability categories and levels) could readily reflect the population structure of the special classes in 1993-96. The results showed that students with mental retardation were over-represented (66.3%) in schools. In recent years, however, the self-contained classes have started to accept the students with moderate/severe disabilities, the representation hence was tapering off. Currently, there are more TMRs than EMRs in the self-contained classes. In fact, students with mild disabilities far outnumbered those with moderate/severe disabilities. Studies showed that most of the EMRs were already mainstreamed into regular classes (Ministry of Education, R.O.C., 2002). In this line of thinking, it is intriguing and interesting to asking (a) if the main-

streamed classes were offered with appropriate special education programs, and (b) what happened after they left the school. The school education would have the positive impact only if school graduates were better off compared to their peers who received no school education.

Among the main reasons for the low employment rate was that our subjects were adolescent school graduates over the past three years. The subjects of the previous studies (i.e., Chen, 1983; Hsu and Hsiao, 1985), however, were graduates over the past ten years from the study; hence their employment rates were much higher (respectively 60% and 66.9%). The above results did not indicate that the employment rate is getting low over time, though. On the contrary, as many subjects in the study were still at school (43.4%), their opportunity for future employment is promising.

One of the main findings of the study was that employment rate of individuals with mild disabilities was higher than that of people with moderate/severe disabilities, suggested that disability levels had an impact on employment rate.

The percentage (20%) of those who stayed at home was high, as compared with the unemployment rate nationwide, which had been below 3% for the time being (it was about 5.7% according to 2003 national statistics, however). They neither received education/training nor found a job and deserved our special concern as they relied on other people for survival substance. This also suggested that the increasing importance the

family support system played in the current development of population with disabilities. It also gave us some message: our government could have made a greater contribution in this field.

#### Living Expenses

Tables 4 and 5 indicated that the sources of living expenses varied by categories ( $\chi^2=379.70, p<.001$ ) and levels of disabilities ( $\chi^2=212.52, p<.001$ ).

Table 4 Sources of Living Expenses by Categories

	Mental R	Visual I.	Hearing I.	Physical D.	Multiple D.	Others	Total
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Self-support	417 (19.8)	2 ( 3.6)	107 (35.8)	33 (20.9)	66 (15.5)	66 (57.9)	691 (21.9)
Parents/Grand-parents	1,593 (75.6)	49 (89.1)	183 (61.2)	87 (55.1)	323 (75.6)	43 (37.7)	2,278 (72.1)
Relatives	38 ( 1.8)	2 ( 3.6)	4 ( 1.3)	2 ( 1.3)	11 ( 2.6)	2 ( 1.8)	59 ( 1.9)
Social Welfare	30 ( 1.4)	0 ( 0.0)	0 ( 0.0)	1 ( 0.6)	4 ( 0.9)	1 ( 0.9)	36 ( 1.1)
Others	29 ( 1.4)	2 ( 3.6)	5 ( 1.7)	35 (22.2)	23 ( 5.4)	2 ( 1.8)	96 ( 3.0)
Total	2,107	55	299	158	427	114	3,160

$\chi^2=379.70$  df=20  $p<.001$

Table 5 Sources of Living Expenses by Levels of Disabilities

	Mild	Moderate	Severe	Profound	Total
Self-support	324 (36.6)	148 (13.5)	111 (13.5)	55 (25.7)	638 (21.2)
Parents/Grand-parents	519 (58.6)	867 (79.3)	658 (80.0)	149 (69.6)	2,193 (72.7)
Relatives	16 ( 1.8)	17 ( 1.6)	16 ( 1.9)	7 ( 3.3)	56 ( 1.9)
Social Welfare	4 ( .5)	16 ( 1.5)	15 ( 1.8)	2 ( 0.9)	37 ( 1.2)
Others.	22 ( 2.5)	46 ( 4.2)	23 ( 2.8)	1 ( 0.5)	92 ( 3.1)
Total	885	1,094	823	214	3,016

$\chi^2=212.52$  df=12  $p<.001$

In general, the major sources of living expenses of the subjects were “parents and/or grandparents” (72.1%), followed by “self-support” (21.9%). However, (a) The living

expenses of the visually impaired depended on their parents (89.1%) more than other disabilities, whereas the “other kind” of disability depended more on themselves (57.9%); (b)

the mildly disabled depended less on their parents (only 58.6%) and more on themselves (up to 36.6%) than the severe ones.

In terms of ways of living expenditure, as indicated in Tables 6 and 7, the expenditure conditions varied by categories and levels of disabilities:

(a) In terms of categories of disabilities, there were significant differences

among different categories of disabilities on almost all the ways of living expenditures but education: i.e., food ( $\chi^2=83.66, p<.001$ ), clothing ( $\chi^2=24.12, p<.001$ ), accommodations ( $\chi^2=11.51, p<.05$ ), transportation ( $\chi^2=19.30, p<.01$ ), medical/rehabilitation ( $\chi^2=35.56, p<.001$ ), and leisure activity ( $\chi^2=83.66, p<.001$ ). In general, food (77.2%) clearly consumed most of the subjects' expenditure, followed by clothing (37.3%). the highest percentage of food expenditure was that of the mentally retarded (81.6%), the lowest percentages of clothing, accommodations,

transportation, and education/training expenditures were that of the visually impaired (14.5%, 3.6%, 7.3%, and 9.1%, respectively), the highest percentage of medical/rehabilitation expenditure was that of the multiply disabled (23.5%), the highest percentage of leisure activity expenditure was that of the "other kinds" of disabilities (35.1%).

(b) In terms of levels of disabilities, there were significant differences among

different levels of disabilities on three of the ways of living expenditures, i.e., food ( $\chi^2=15.24, p<.01$ ), medical/rehabilitation ( $\chi^2=54.49, p<.001$ ), and leisure activity ( $\chi^2=15.26, p<.01$ ). In general, the highest percentage of food expenditure was that of the moderately disabled (80.9%), the lowest percentage of medical/rehabilitation expenditure was that of the mildly disabled (9.3%), whereas the highest percentage of leisure activity expenditure was that of the mildly disabled (23%).

Table 6 Ways of Living Expenditures by Categories

	Mental R	Visual I.	Hearing I.	Physical D.	Multiple D.	Others	Total	$\chi^2$
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	
Food	1733 (81.6)	38 (69.1)	202 (67.8)	107 (67.3)	308 (71.8)	65 (57.0)	2453 (77.2)	83.06***
Clothing	840 (39.5)	8 (14.5)	98 (32.8)	48 (30.2)	156 (36.4)	37 (32.5)	1187 (37.3)	24.12***
Accommodaions	428 (20.2)	2 ( 3.6)	63 (21.1)	29 (18.2)	74 (17.2)	21 (18.4)	617 (19.4)	11.51*
Transportation	544 (25.6)	4 ( 7.3)	70 (23.4)	27 (17.0)	88 (20.5)	24 (21.1)	757 (23.8)	19.30**
Medical/Rehab.	353 (16.6)	2 ( 3.6)	34 (11.4)	21 (13.2)	101 (23.5)	9 ( 7.9)	520 (16.4)	35.36***
Education	325 (15.3)	5 ( 9.1)	53 (17.7)	24 (15.1)	61 (14.2)	14 (12.3)	482 (15.2)	4.17
Leisure Activity	374 (17.6)	9 (16.4)	73 (24.4)	29 (18.2)	74 (17.2)	40 (35.1)	599 (18.8)	28.84***
Others	53 ( 2.5)	1 ( 1.8)	8 ( 2.7)	8 ( 5.1)	16 ( 3.7)	3 ( 2.6)	89 ( 2.8)	5.30

\* $p<.05$     \*\* $p<.01$     \*\*\* $p<.001$



Table 7 Ways of Living Expenditure by Levels of Disabilities

	Mild	Moderate	Severe	Profound	Total	$\chi^2$
Food	684 (76.6)	887 (80.9)	612 (73.9)	159 (74.0)	2342 (77.2)	15.24**
Clothing	317 (35.5)	428 (39.0)	311 (37.6)	84 (39.1)	1140 (37.6)	2.77
Accommodations	150 (16.8)	238 (21.7)	166 (20.0)	41 (19.1)	595 (19.6)	7.59
Transportation	214 (24.0)	282 (25.7)	185 (22.3)	42 (19.5)	723 (23.8)	5.33
Medical/Rehab.	83 ( 9.3)	198 (18.0)	179 (21.6)	46 (21.4)	506 (16.7)	54.49***
Education	125 (14.0)	177 (16.1)	132 (15.9)	30 (14.0)	464 (15.3)	2.29
Leisure Activity	205 (23.0)	179 (16.3)	147 (17.8)	39 (18.1)	570 (18.8)	15.26**
Others	26 ( 2.9)	28 ( 2.6)	25 ( 3.0)	8 ( 3.7)	87 ( 2.9)	1.03

\*\* $p < .01$ \*\*\* $p < .001$ 

In general, the more living expenditure on food and the lower living expenditure on leisure activities, the lower quality of life and the lower social economic status of the family or a person. The above results indicated that most of the subjects, their families as well probably, were in a relatively disadvantaged condition of life than the non-disabled. On the other hand, the degree of the poor situation varied by category and level of disability and was reflecting their different needs. For example, the multiply disabled were in need of more medical/rehabilitation care and the mildly disabled were more concerned about leisure activities. These certainly meant a lot in meeting the need of persons with disabilities in the field of special education and social welfare.

#### Living Independence

Four areas related to independent living were investigated in this study: clothing, eating, housecleaning, and mobility. The subjects were asked to rate themselves according to four levels: 1(mostly depending on others), 2(partially self-cared), 3(mostly self-cared), 4(totally self-cared). The major findings

were as follows: (a) the subjects were, in general, quite independent in clothing, eating, and housecleaning (average ratings of 3.69, 3.64, and 3.29, respectively), whereas mobility by vehicles was the one more depending on others (average rating of 2.68); (b) In terms of categories of disabilities, the visually impaired, the hearing impaired, and the "other kinds" of disabilities were more living-independent than other categories of disabilities, with the exception of mobility for the visually impaired, who were as restricted as the mentally retarded, the multiply disabled, and the physically disabled; (c) In terms of levels of disabilities, the more severe of the subjects the less self-independent, this was especially true for the mentally retarded, physically disabled, and the multiply disabled.

It appears that independent living skills varied with categories and levels of disabilities. Although in general the subjects were self-caring well in clothing, eating, and housecleaning, mobility skills was in need of better training, especially for the severely retarded, physically disabled, and multiple disabled.

**Sociability**

Table 8 shows the degrees of sociability by categories and levels of disabilities, while Table 9 is the summary of analysis of variance on degrees of sociability by categories and levels of disabilities. As indicated in Tables 9, there was a significant interaction between categories of disabilities and levels of disabilities ( $F=3.52, p<.001$ ) on sociability (or “making friends”), although there were significant main effects of category ( $F=35.00, p<.001$ ) and level ( $F=80.58, p<.001$ ). In general, the average degree (2.63) was between “seldom” and “occasional”; the visually impaired and the hearing impaired were

the highest (3.18 and 3.15 respectively), while the mentally retarded and the multiply disabled were the lowest (2.51 and 2.58 respectively). On the other hand, according to the Scheffe” test, It was only the sociability of the mentally retarded, rather than other categories of disabilities, varied with levels of disabilities, the milder the better. In terms of levels of disabilities, for the moderate and severe ones, the visually impaired showed higher sociability than the retarded; while for the profound, again, the retarded showed lower sociability than the hearing impaired and multiply disabled.

**Table 8 Degrees of Sociability by Categories and Levels of Disabilities**

	1.Mild			2.Moderate			3.Severe			4.Profound			Total		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
1.MR	728	2.89	.91	829	2.44	.97	391	2.03	.97	51	1.71	.94	1991	2.51	1.01
2.VI	3	3.00	1.73	14	3.36	.84	36	3.19	.79	2	2.00	.00	55	3.18	.86
3.HI	16	3.25	.77	41	2.90	.83	185	3.04	.88	50	3.02	.84	292	3.03	.86
4.PH	41	3.29	.78	76	3.07	.88	35	3.29	.79	4	2.25	.50	156	3.15	.84
5.MD	33	3.09	.80	106	2.62	1.02	167	2.44	1.01	105	2.60	.99	411	2.58	1.00
6.Others	68	3.12	.89	23	2.87	1.14	9	2.89	1.05	2	2.50	.71	102	3.03	.96
Total	889	2.94	.91	1,089	2.54	.99	823	2.45	1.05	214	2.47	1.04	3,015	2.63	1.01

Note: Degrees of sociability are: 1 (none), 2 (seldom), 3 (occasional), 4 (often).

**Table 9 Summary of Analysis of Variance on Degrees of Sociability by Categories and Levels of Disabilities**

	df	MS	F	Scheffé Test
Category (A)	5	30.91	35.00***	MR:1>2>3>4, MR:1>3
Degree (B)	3	71.17	80.58***	Moderate:2>4>1, Severe:2,3>5>1
A×B	15	3.11	3.52***	Profound:3,5>1
Residual	2,991	.88		

\*\*\* $p<.001$

The main difficulties in making friends, according to free comments and interview, were as follows: a lack of communication skills, a lack of self-confidence, no chance to meet friends other than their classmates, and mobility difficulties. The retarded are typically characterized by lacking communication skills and self-confidence that might result in a low sociability. On the other hand, the visually and hearing impaired did not necessary have social problems provided they were equipped with communication skills and self-confidence.

#### Life Satisfaction

When asked, "Are you happy with your

life?" As showed in Tables 10 and 11, there were significant differences among different categories of disabilities ( $F=3.17, p<.01$ ) and different levels of disabilities ( $F=8.34, p<.001$ ). In general, the subjects indicated a nearly "average" degree of satisfaction (2.76 in a rating scale of 1 to 5). On the other hand, according to the Scheffe" test, It was obvious that the milder the disability, the better satisfaction of life. In terms of categories of disability, the mentally retarded and the hearing impaired showed higher satisfaction than the physically handicapped and the multiply disabled.

Table 10 Degrees of Life Satisfaction by Categories and Levels of Disabilities

	1.Mild			2.Moderate			3.Severe			4.Profound			Total		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
1.MR	729	2.87	.81	826	2.78	.84	391	2.67	.80	50	2.66	.87	1,996	2.79	.82
2.VI	3	3.00	1.00	14	2.71	.73	36	2.69	.67	2	3.00	2.83	55	2.73	.78
3.HI	16	2.94	.85	41	2.98	.85	185	2.74	.76	50	2.72	.78	292	2.78	.79
4.PH	41	2.68	.88	75	2.60	.85	35	2.69	.87	4	1.50	.58	155	2.61	.87
5.MD	32	2.78	.75	105	2.70	.88	165	2.53	.77	105	2.75	.87	407	2.65	.83
6.Others	68	2.94	.94	23	2.65	.83	9	2.44	.73	2	2.50	.71	102	2.82	.91
Total	889	2.87	.82	1,084	2.76	.84	821	2.66	.79	213	2.70	.88	3,007	2.76	.83

Note: Degrees of life satisfaction: 1 (very unhappy), 2 (unhappy), 3 (general), 4 (happy), 5 (very happy).

Table 11 Summary of Analysis of Variance on Degrees of Life Satisfaction by Categories and Levels of Disabilities

	df	MS	F	Scheffé Test
Category (A)	5	2.14	3.17**	Others, MR, HI>PH, MD
Degree (B)	3	6.54	8.34***	Mild>Moderate>Severe, Profound
A×B	15	1.18	1.00	
Residual	2,983	.68		

\*\* $p<.01$

\*\*\* $p<.001$

It seems that the subjects were in general not very happy with their life. The physically disabled and the multiply disabled were more restricted in their living environment than the mentally retarded and hearing impaired. However, they were more striving for career achievement because of their less restricted mental abilities. In turn, the physically disabled were feeling less happy than the others were.

It was interesting to note that although the retarded were not as social as other disabled persons, their life satisfaction was not inferior to them. In other word, the retarded might be easier to be satisfied than others. Not so social, not so unhappy, this may be a special feature of the retarded.

### Needs in Life Adjustment

When asked, “What would you like most to do at present time?” As indicated in Tables 12, 13, and 14, there were significant differences among different categories of disabilities, different levels of disabilities, different gender, and different educational levels on the most-wanted things (significant items based on  $\chi^2$  test were 8/8, 5/8, 1/8, and 3/8, respectively). In general, the preferences were as follows: Finding a job (44.6%), continuing education or training (33%), making friends (29.3%), travelling or having leisure (25.8%), medical care or rehabilitation (11.4%), getting financial aid (8.7%), getting married (5.5%), “others” (5.3%).

Further analysis revealed the following:

(a) In terms of categories of disabilities, the most-wanted for the mentally retarded was “finding a job” (42.6%), followed by

“education/training” (32.3%); for the visually impaired were “finding a job” and “making friends” (both were 67.3%), followed by “travel/leisure” (61.8%) and “education/training” (30.9%); for the hearing impaired was “finding a job” (52.5%), followed by “travel/leisure” (43.5%), “education/training” (38.1%) and “making friends” (36.1%); for the physically disabled was “finding a job” (51.6%), followed by “education/training” (45.3%) and “making friends” (29.6%); for the multiply disabled was “finding a job” (46.6%), followed by “education/training” (29.6%); for the “other kinds” of disabilities was “travel/leisure” (40.4%), followed by “making friends” (37.7%) and “finding a job” (33.3%).

(b) In terms of levels of disabilities, while the preferences were in general the same as the subjects as a whole, e.g., the most-wanted was “finding a job” (from 43.4% to 46.3%), the profound indicated a somewhat different picture, i.e., less inclined to “education/training” (25.1%) and more inclined to “getting married” (16.3%), medical/rehabilitation” (16.7%), “financial aid” (13.5%), and “travel/leisure” (31.6%) in comparison to those with other levels of disabilities.

(c) In terms of gender, the only difference was on “making friends” – female subjects (31.6%) were more inclined to it than males (27.7%).

(d) In terms of educational levels, the junior high graduates were more inclined to “education/training” than the senior high ones (33.5% vs. 24.3%), whereas the vice versa for “getting married” (3.3% vs. 26%) and travel/leisure” (24.2% vs. 42%).

Table 12 The Most-wanted Things at Present by Categories of Disabilities

	Mental R	Visual I.	Hearing I.	Physical D.	Multiple D.	Others	Total	$\chi^2$
	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	
Edu./Training	686(32.3)	17(30.9)	114(38.1)	72(45.3)	127(29.6)	33(28.9)	1049(33.0)	18.08**
Get Married	62( 2.5)	3( 5.5)	57(19.1)	7( 4.4)	41( 9.6)	5( 4.4)	175( 5.5)	147.20***
Find A Job	904(42.6)	37(67.3)	157(52.5)	82(51.6)	200(46.6)	38(33.3)	1418(44.6)	32.28***
Med./Rehab.	195( 9.2)	2( 3.6)	23( 7.7)	40(25.2)	96(22.4)	6( 5.3)	362(11.4)	103.06***
Financial Aid	190( 8.9)	0( 0.0)	19( 6.4)	15( 9.4)	50(11.7)	4( 3.5)	278( 8.7)	16.09**
Make Friends	577(27.2)	37(67.3)	108(36.1)	47(29.6)	119(27.7)	43(37.7)	931(29.3)	54.10***
Travel/Leisure	460(21.7)	34(61.8)	130(43.5)	39(24.5)	111(25.9)	46(40.4)	820(25.8)	117.91***
Others	120( 5.6)	0( 0.0)	8( 2.7)	11( 6.9)	18( 4.2)	10( 8.8)	167( 5.3)	12.40*

\* $p < .05$     \*\* $p < .01$     \*\*\* $p < .001$

Table 13 The Most-Wanted Things by Levels of Disabilities

	Mild	Moderate	Severe	Profound	Total	$\chi^2$
Edu./Training	300(33.6)	386(35.2)	272(32.9)	54(25.1)	1012(33.4)	8.28*
Get Married	35( 3.9)	42( 3.8)	55( 6.6)	35(16.3)	167( 5.5)	60.32***
Find A Job	388(43.4)	501(45.6)	383(46.3)	94(43.7)	366(45.0)	1.71
Med./Rehab.	50( 5.6)	140(12.8)	126(15.2)	36(16.7)	352(11.6)	48.88***
Financial Aid	40( 4.5)	105( 9.6)	100( 2.1)	29(13.5)	274( 9.0)	37.45***
Make Friends	291(32.6)	307(28.0)	233(28.1)	62(28.8)	893(29.4)	6.13
Travel/Leisure	243(27.2)	248(22.6)	224(27.1)	68(31.6)	783(25.8)	11.34*
Others	56( 6.3)	60( 5.5)	39( 4.7)	10( 4.7)	165( 5.4)	2.32

\* $p < .05$     \*\*\* $p < .001$

Table 14 The Most-Wanted Things by Gender and Educational Levels

	Gender				Educational Level			
	Male	Female	Total	$\chi^2$	Male	Female	Total	$\chi^2$
Edu./Training	593(31.7)	462(34.1)	1,055(32.7)	2.14	978(33.6)	73(24.3)	1,051(32.8)	10.67*
Get Married	104( 5.6)	73( 5.4)	177( 5.5)	.04	97( 3.3)	78(26.0)	175( 5.5)	270.85***
Find A Job	844(45.1)	592(43.8)	1,436(44.5)	.58	1,292(44.4)	131(43.7)	1,423(44.4)	.06
Med./Rehab.	207(11.1)	154(11.4)	361(11.2)	.08	333(11.5)	27( 9.0)	360(11.2)	1.64
Financial Aid	162( 8.7)	117( 8.6)	279( 8.7)	.00	258( 8.9)	21( 7.0)	279( 8.7)	1.20
Make Friends	519(27.7)	428(31.6)	947(29.4)	5.74*	846(29.1)	94(31.3)	940(29.3)	.66
Travel/Leisure	469(25.1)	366(27.1)	835(25.9)	1.61	705(24.2)	126(42.0)	831(25.9)	44.67***
Others	102( 5.5)	65( 4.8)	167( 5.2)	.67	152( 5.2)	14( 4.7)	166( 5.2)	.17

\* $p < .05$     \*\*\* $p < .001$

It was obvious that the greatest need in the present life of the subjects, the physically disabled in particular, was “finding a job” in order to be economically independent; there was also a great need of continued learning or training, especially for the junior high graduates. Both job preparation and educational level are closely related. In addition to job hunting and educational needs, it should be noted that social activities (making friends) and leisure activities were also concerned by the subjects considerably.

#### Needs of Assistance in Daily Life

The data collected from the open-ended questions, “What do you need help in present daily life?” can be summarized as the following:

(a) In terms of education, there is a great need of continued study, though not necessary a higher level of schooling. The main purposes of this study were to learn working, communication, and leisure activity skills, however.

(b) In terms of employment, there was a great need of assistance in finding a job. Many subjects expressed that they want a suitable, stable, and properly paid job, they need vocational training and career guidance, they hope to be socially accepted by the enterprises.

(c) In terms of medical care and rehabilitation, some of the subjects indicated a great need of a free medical care and rehabilitation, including special equipment, psychological counseling, and related information.

(d) In terms of institutional care, some subjects showed a great need of institutional care and hoped that the institutions be community-based.

(e) In terms of daily life, many subjects expressed a great need of living financial aid and a better quality of life, including a barrier-free social environment of making friends, leisure activities, and public acceptance.

## CONCLUSIONS AND SUGGESTIONS

### Conclusions

The main purpose of this study was to explore the living, learning, and employment status of graduates of special classes and special schools in Taiwan in 1993-96. However, this paper addresses to current status and living conditions only. Subjects consisted of 3,227 in the following categories of disabilities: mental retardation, visual impairments, hearing impairments, physical disabilities, multiple disabilities, and others. The major findings were as follows: (a) in general, while the majority of the subjects were under 20 years of age for the time being, only few were married (48, or 1.48%), most of them (1,339, or 43.4%) were still in school, 983 (or 30.5%) had a full-time job, 609 (or 18.9%) stayed at home, 170 (or 5.3%) were receiving vocational training, the rest (66, or 2.0%) were unanswered; (b) the subjects' living expenses mostly depended on their parents; (c) compared to clothing, accommodation and transportation, food clearly consumed most of their expenditure, whereas

mobility was the one most depending on others; (d) while the mentally retarded and the multiply disabled had more sociability difficulties than others, it was only the sociability of the retarded, rather than other categories of disabilities, varied with levels of disabilities, the severer the worse; (e) in general, the subjects indicated a nearly “average” degree of life satisfaction and the severely disabled showed lower degree of satisfaction than the milder ones; (f) the greatest need in the present life of the subjects, the physically disabled in particular, was “finding a job”, there was also a great need of continued learning or training, especially for the junior high graduates; (g) In terms of daily life, many subjects expressed a great need of a better quality of life, including a barrier-free social environment of making friends, leisure activities, and public acceptance.

### Suggestions

The current research findings not only reflected the current status, life adjustment, life satisfaction, and needs of present life of the graduates with disabilities, but also revealed their needs of post-graduation as well as valuable feedback on previous schooling. Based on the above findings, recommendations are presented as follows:

(a) Setting up a school-based and systematic follow-up program: The program is especially needed for graduates with disabilities. School teachers and staff should assume the responsibility of carrying out the follow-up program for at least one year after students leave school.

(b) Starting the follow-up program ear-

lier: School teachers and staff should recognize the importance of transitional guidance and plan the related programs long before students are graduated.

(c) Professional team be involved: Vocational counselor or rehabilitation counselor should be incorporated in the school staff so as to provide adequate transitional services and assist in supported employment.

(d) Transitional curriculum be implemented: Independent living skills, including mobility by vehicles, communication skills, and making friends skills, should be better trained in school for students with disabilities.

(e) Environmental and family supports: It is necessary to promote a barrier-free living environment, both physically and psychosocially. The family support and community support is crucial in increasing their sociability and self-confidence.

(f) Sex education and marriage education: As both are important but ignored in special education for the time being. They should be incorporated in the school curriculum for the preparation of their adult life.

(g) Pursuing the quality of life for the disabled: The quality of life of persons with disabilities should be emphasized and upgraded in terms of physical life, social participation, continued learning, and leisure activities.

(h) Future studies: More similar follow-up studies on the subjects should be conducted (and better be on regular basis) in order to gain an insight into their future development.

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# 臺灣地區中學身心障礙特殊班畢業學生 生活適應之追蹤研究

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## 摘 要

本研究旨在以普查方式探討 1993~1996 年中學身心障礙特殊班畢業生之生活適應狀況及需求。受訪者包括智障、視障、聽障、肢障、多重障礙與其他障礙共六類學生，畢業於二十一縣市的 127 所中學（含八所特殊學校）。共有 3,277 名受試者完成本調查（占母群體的 93.64%），其中大部分為智障者（2,124 名，占 65.8%）。調查方法為透過原級任導師親自訪問並填答問卷，如學生無法填答，則由家長代為填答。

本研究主要發現如下：(1)多數畢業生接受調查時未足二十歲，僅極少數已婚（48 名，占 1.48%），多數仍在學（1,339 名，占 43.4%），少數有專職（983 名，占 30.5%），另有少數在家（609 名，占 18.9%）或正接受職訓（170 名，占 5.3%），餘為未回答者；(2)大多數受訪者的生活費用仍仰賴父母；(3)在食衣住行當中，生活費用以食為大宗，最需仰賴他人者則為“行”；(4)人際交往方面，智能障礙與多重障礙者之困難度高於其他類障礙者，但只有智障者之人際困難度隨著智障程度而有變化（愈嚴重，人際關係愈困難）；(5)一般而言，受訪者之生活滿意度屬“普通”，然而重障者顯然低於輕障者，肢障與多障者之滿意度低於其他各類障礙者，較特別的是智障者雖然交友困難，但生活滿意度不低，顯示容易滿足的特性；(6)受訪者目前最大的需要是找到工作、繼續學習或接受職訓、及較佳的生活品質。

本研究根據調查結果提出若干建議，包括加強在校身心障礙學生的獨立生活訓練及畢業生之追蹤輔導。

關鍵詞：身心障礙、特殊班、生活適應、生活滿意、追蹤研究