國民教育研究學報，第 1 期：135～171頁
民84年，國立嘉義師院初等教育研究所

Predictors of Teaching Willingness in Teachers of the Mentally Retarded

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ABSTRACT

The purpose of this study was to investigate the relationships between teaching willingness and the selected variables including the personal, familial, school, and social factors among teachers of the mentally retarded.

The respondents of this study consisted of 527 elementary and junior high school teachers of the mentally retarded in Taiwan. The instrument for data collection was the Teacher Feeling Questionnaire. The data analysis approaches included the Pearson's product-moment correlation and multiple regression.

The conclusions drawn from the study are as follows :

1. The personal factors self-decision for special class teaching, religion belief, aptitude for special class teaching, present health condition, present teaching achievement and prior experience with the handicapped, respectively, revealed a statistically significant relationship to the variable of teaching willingness.

2. The personal factors age, sex, academic background, professional training, years of regular class teaching, years of special class teaching, and age of starting special class teaching, respectively, failed to have any statistically significant relationship to the variable of teaching willingness.

3. A statistically significant correlation was found between the familial factor of family support level for special class teaching and the variable of teaching willingness.

4. The familial factors marriage status, number of children, and family economic status did not have any statistically significant relationship to teaching willingness.

5. The school factors school support, colleague relation, exchange between regular and special class teachers, students' feedback, curriculum planning autonomy, special class environment, and students' characteristics, respectively, significantly correlated with the variable of teaching willingness.

6. The school factors of present position, teaching hours, teaching pressure, and possibility to re-teach regular class failed to have any statistically significant relationship to the variable of teaching willingness.

7. The social factors of parental support, social acceptance, and teachers' status, respectively, had a significant relationship to the variable of teaching willingness.

8. The best set of factors to predict teaching willingness of teachers working with the mentally retarded in this study was the combination of the variables aptitude for special class teaching, prior experience with the handicapped, teachers' status, self-decision for special class teaching, students' characteristics, present teaching achievement, curriculum planning autonomy, exchange between regular and special class teachers, family support level for special class teaching, and school support.

Introduction

Due to the implementation of the Special Education Act and strong support from the government, special education in the Republic of China on Taiwan has rapid development in recent years. As a result, the increasing needs of special educators are evident. Various special education teacher preparation or in-service training programs have been setting up in order to meet the needs of educational manpower. According to the results of the second national survey on exceptional children, it is found that 41.61% of handicapped children between the ages 6 and 15 are mentally retarded. It is also found that

58.12% of handicapped children placed in special education programs are retarded students (Ministry of Education, 1992). Thus, among the special education teachers, the biggest teacher group undoubtedly should be the one working with the mentally retarded. However, the high turnover rate of teachers working in the area of mental retardation has been the focus of concern in the field of special education for years (Tsai, 1985; Mao, 1992). Nevertheless, the studies of Ho (1989, 1991) have indicated that approximately 18% of teachers working with the mentally retarded have more than 10 years of services in teaching mentally handicapped children. This is a meaningful phenomenon to afford food for thought. From a follow-up study on career development of senior teachers working with the mentally retarded conducted by the author (Ho, 1992), it was also found that teaching willingness is the most important personal factor for these teachers to keep their jobs in mental retardation for more than ten years.Teaching willingness seems to be an issue needed for further investigation.

Referring to the existing bibliography, no studies directly dealing with teaching willingness could be found. Teacher willingness might have been mentioned in a few studies (Ream, 1977; Bailey, 1991; Lewy, 1986; Jones, Gottlieb, Guskin, and Yoshida, 1978). Its correlates were not determined in those studies. Although it is hard to find any specific literature related to correlates of teaching willingness, the studies pertaining to career decision, morale, or turnover of regular or special education teachers still could be found.

From the study of the mid-life career decision factors of vocational teachers in trade and industrial education, Wittkamper and Harris (1987) indicated that motivation and hygiene factors are important determinants for these teachers to decide to teach. A study by Bergsma and Chu (1981) investigated the reasons that college

senior education students had for wanting to enter education. They found that students in the 1980s were more interested in the intrinsic rewards of teaching than were students in the earlier studies. In other words, the primary motivation of students in the 1980s was altruistic. This kind of conclusion was also supported by other studies (Page and Page, 1981; White, 1979). A study conducted by Cheek, McGhee, and West (1983) disclosed that "it may be impractical on the basis of demographic, self-concept, work values, and morale measures to pre-screen agricultural education students into those likely to teach and those not likely to teach"(p. 59). Several studies (Bogad, 1983 ; Cole, 1983 ; Miller, 1974) have found the major reasons for students who have pursued a teacher preparation program and subsequently decide not to teach are as follows : (1) more personal freedom and time;(2) higher salary;(3) too much red tape;(4) value conflicts with the orientation of the profession; (5) attractive career alternatives; and (6) discipline problems (cited in Pucel, Jensrud, and Persico, 1987, p. 8). Lin (1989) also pointed out that the reasons for professionally trained teachers who do not enter special education in Taiwan are the following : (1) insufficient support from administrators resulting in low morale of teachers; (2) teachers intend to get credits from professional training rather than to teach in special education; (3) teachers feel much frustrated due to less feedback from students.

The literature associated with teacher morale seems plentiful. Some important are mentioned here. From an exploratory interview study of 50 retired secondary school teachers, Peterson (1978) indicated that the teaching career could be divided into three attitudinal phases.The three phases and respective features are as follows : (1) age 20-40 : considerable shifts in commitment to teaching, job morale, and other outlooks;(2) age 40-55 : high morale and com-

mitment to teaching; and (3) age 55-retirement : withdrawal from the teaching profession and showing a variety of different attitudes and outlooks. Newman (1979) conducted an indepth interview study of ten middle-aged public school teachers about their career development. The results of Newman's study revealed that the teaching careers of these experienced teachers were characterized by early job mobility, high satisfaction in the first decade followed by restlessness and a feeling of crisis as retirement approached. According to the study of Pelsma, Richard, Harrington, and Burry (1987), it was found that a slight (but significant) relationship may exist between satisfaction and educational level (the higher the educational level the lower the job satisfaction) and between age and stress (the older the individual the more stress experienced) for teachers. However, overall job satisfaction and job stress for the teachers in their sample did not appear to be significantly related to most demographic variables (i.e., age, sex, education, or level of teaching). Weiskopf(1980) reported that factors associated with burn-out of special education teachers included the following : (1) heavy work load; (2) lack of achievement; (3) too many hours to directly work with students; and (4) much stress from assuming responsibility for long time. From a survey of job satisfaction, stress, and burnout of secondary special education teachers for the mentally retarded in Taiwan, Ho (1989) pointed out the following findings related to junior high teachers working with the mentally retarded : (1) age seemed to have positive relationship with job satisfaction and to have negative relationships with both stress as well as burnout; (2) teachers graduating from the department of special education had lower job satisfaction and teachers taking short-term training courses had higher job satisfaction; (3) teachers graduating from the department of special

education showed the strongest burnout ; and (4) teachers with 1 to 3 years' experience had higher job satisfaction, teachers with 3 to 5 years' experience showed lower satisfaction, and those teaching more than 5 years tended to raise job satisfaction level a little bit.

As to the factors contributing to teacher turnover, Knight and Binder (1978) found that the five important reasons for high school vocational agricultural teachers to leave their positions were : (1) teaching not compatible with long term career goals; (2) problems with students; (3) inadequate advancement opportunities; (4) long work hours; and (5) low salaries. Frataccia and Hennington (1982) stated that the main reasons given by teachers for resigning their positions included a lack of recognition, job advancement, and low pay. Cole (1983) indicated that the major reasons for vocational agriculture teachers to leave education were concerns for time, money, and classroom control. Pucel et al. (1987) examined the career and professional development activities of postsecondary and adult vocational teachers without degrees in education during their first five years in vocational education. They found that the two most important factors which attracted people to become vocational educators were their desire to share what they know and to work with students. Pucel et al. also found that the major reasons for people leaving vocational education were career advancement, job elimination, work schedules, and salary. In the study of Zabel and Zabel (1982), they reported that there is no significant relationship between work hours and turnover but supports from administrators and parents appear to relate to turnover of special education teachers. In Taiwan, lack of achievement, insufficient professional knowledge, and heavy job stress have been blamed for high turnover of teachers working with the mentally retarded (Tsai, 1985; Ho, 1989). Tsai (1985) and Ho (1989)

also found that assignment of special education by government and school authority often results in high teacher turnover and teachers who enter special education for their interests and ideals usually have higher job satisfaction. Tsai (1985) further disclosed the following results from his study on turnover of special education teachers : (1) teachers of age 41-50 had the highest turnover; (2) turnover of male teachers were higher than females; (3) teachers with graduate background revealed the highest turnover, then teachers with undergraduate background from teachers college or normal university, and those who with general college background were the lowest; (4) teachers with special education major from junior teachers college had the highest turnover, then teachers from certification program, and those who with special education major from college were the lowest; (5) teachers with less than 3-year special education experience appeared to have the highest turnover.

From the above mentioned literature, we could understand that variables tried previously to relate to career decision, morale, or turnover of regular or special education teachers are mostly in personal, school, and social areas. Conceptually speaking, teaching willingness may be more or less related to career decision, morale, or turnover of teachers but they should not be synonymous. Therefore, it seems to be worthwhile to investigate factors associated with teaching willingness of teachers working with the mentally retarded in order to help selection, training, and career guidance of this teacher population. In addition to personal, school, and social variables, the relationships between teaching willingness and familial factors were also determined in the study for the purpose of more extensive understanding. More specifically, this study was designed to explore the following research questions :

1. What are the relationships between teaching willingness and the personal factors of age, sex, academic background, professional training, years of regular class teaching, years of special class teaching, age of starting special class teaching, self-decision for special class teaching, religion belief, aptitude for special class teaching, present health condition, present teaching achievement, and prior experience with the handicapped?

2. What are the relationships between teaching willingness and the familial factors of marriage status, number of children, family economic status, and family support level for special class teaching?

3. What are the relationships between teaching willingness and the school factors of present position, teaching hours, and perceived school support, colleague relation, exchange between regular and special class teachers, students' feedback, teaching pressure, curriculum planning autonomy, special class environment, students' characteristics, and possibility to re-teach regular class?

4. What are the relationships between teaching willingness and the social factors of perceived parental support, social acceptance, and teachers' status?

5. What is the best set of factors to predict teaching willingness?

Method

For answering the aforementioned research questions, a questionnaire survey approach was designed in this study.Respondents, instrument, data collection, analysis of the data, description of the variables are consecutively delineated in this method section.

Respondents

A group of 69 schools having special classes for students with mental retardation, 35 elementary schools, 30 junior high schools, one 9-year junior high and elementary combined school, and 3 special schools, listed in the Directory of Special Education, Rehabilitation, and Welfare Services in Taiwan (Wu and Chang, 1990) was identified through a systematic sampling approach.By employing this sampling method, every prefecture or municipality at least had one elementary and one junior high school selected.Each sampled school then was asked to provide to the researcher all the names of its full time teachers who are working with mentally retarded students.A list of 609 teachers, 366 from junior high and 243 from elementary schools, was thus obtained for responding to the instrument of this study.

Instrument

The instrument employed in the study was the Teacher Feeling Questionnaire (TFQ). The TFQ consisted of three major dimensions in order to adequately cover all data needed for reseach questions of this study. The first dimension elicited information about the demographic characteristics of the respondents. The items included in the first dimension were related to sex of teacher, age, marriage status, number of children, academic background, professional training, years of regular class teaching, years of special class teaching, age of starting special class teaching, present position, weekly teaching load, self-decision for special class teaching, religion belief, aptitude for special class teaching, present health condition, present teaching

achievement, prior experience with the handicapped, family economic status, and family support level for special class teaching.

The second portion of the TFQ was the Educational Perception Survey (EPS). The EPS was intended to understand responses to some questions related to education of the mentally retarded from the respondents. Specifically speaking, the items taken in the EPS were associated with school support, colleague relation, exchange between regular and special class teachers, students' feedback, teaching pressure, curriculum planning, autonomy, special class environment, students' characteristics, possibility to re-teach regular class, parental support, social acceptance, and teachers' status.

The third part of the TFQ was the Teaching Feeling Scale (TFS). The TFS was developed for the purpose of discerning the teaching willingness of the elementary and junior high teachers working with the mentally retarded sampled by the study.The Likert 5-choice format with responses weighted so that the higher numerical value corresponded to the more positive (favorable) willingness was used for scale development. Based on 5 competency areas presented in the study of Ho (1989), a preliminary version of the TFS including 30 items related to the areas of curriculum and instruction, assessment and records, guidance ability, interpersonal communication, as well as research and inservice education was produced. In the development process of the whole Teacher Feeling Questionnaire (including demographic information, the EPS, and TFS), the following procedures were applied: (1) expert evaluations ; (2) a pilot study; and (3) revision of the preliminary version of TFQ.

In the pilot study, the preliminary version of the TFQ was administered to 108 elementary and 30 junior high school teachers working with the mentally retarded. The data from the Teaching

Feeling Scale (TFS) were subjected to varimax rotation factor analysis for the purpose of item selection. All primary 30 items of the TFS were retained due to the following two reasons: (1) six factors with eigenvalues above 1.00 were obtained from factor analysis and all items had communalities above .100; (2) if all items were grouped under 6 factors, the product moment correlation coefficients between the score of each item and the total score of its respective factor were all above .30.

Using the formal data collected from the respondents sampled, the construct validity of the TFS was tested by varimax rotation factor analysis (Norusis, 1986). The results obtained from factor analysis revealed that six factors with eigenvalues above 1.00 could be extracted and accounted for 54.6% of the total variance (see Table 1).. The six factors could be defined and named as follows: (1) general teaching feeling: including items 1, 2, 3, 5, 9, 11, 12, 13, 15, 19, 21, 22, 23, 25 and 29; (2) guidance feeling: including items 4, 6, 16, and 24; (3) assessment feeling: consisting of items 10, 20, and 30, (4) research and development feeling: including items 14, 17, 26 and 27; (5) teaching concerns: containing items 7, 8, and 28; and (6) seeking school support : item 18 only.

The equal length Spearman-Brown and Guttman Split-half reliability coefficients for the total TFS, respectively, were .8899 and .8806. A group of 485 respondents who completed and provided usable responses for the TFS was included in the reliability determinations.

Table 1.

Summary for Factor Analysis of the TFS

Item	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	Communality
1	.53404	-.40161	-.04678	-.10555	.02854	.23829	.51741
2	.71902	-.00542	.00655	-.02294	-.24754	-.02126	.57932
3	.75713	.02906	.05861	-.12744	-.21936	-.02458	.64249
4	-.15648	.59091	.05820	-.01281	.20425	.17616	.44997
5	.73557	-.10022	-.09658	.05416	-.08987	-.07275	.57674
6	-.15886	.72809	.04401	.12026	.12886	-.04926	.59078
7	-.06768	.19230	.13795	.07102	.63834	.11267	.48580
8	-.05087	.32949	.00230	.09069	.59645	.24028	.53288
9	.67220	-.25742	.13152	-.00112	-.16224	.12435	.57720
10	-.16545	.06693	.68376	.14387	.06885	-.13359	.54267
11	.62743	-.11563	-.14809	-.14481	.21820	.14540	.51870
12	.62265	-.22283	-.09636	-.21005	.21126	.13666	.55406
13	.70630	-.05584	.00114	-.15538	.04368	.09522	.53710
14	-.03966	-.03654	.22034	.50175	.19829	.11382	.35548
15	.66088	-.11388	-.28974	-.03248	.05504	-.02061	.53818
16	.03844	.40119	.38941	-.13113	-.11489	.34771	.46537
17	-.18921	.00703	.09405	.42339	.19406	.41102	.43055
18	-.02602	.13179	-.03545	.19569	.05776	.68087	.52451
19	.76204	-.07219	.02436	.01719	-.04857	-.00315	.58917
20	-.08932	.06560	.79643	.05779	.12876	-.03559	.66777
21	.70395	-.06529	-.32882	.12121	.13761	-.21666	.68850
22	.73029	.02816	-.05786	.02448	.01655	-.28077	.61717
23	.68180	.14324	-.00516	-.18832	-.10563	-.15208	.55514
24	.01978	.72523	.08363	.00131	.07783	.03911	.54094
25	.72060	.03605	-.15944	-.00683	-.05798	-.14762	.57119
26	-.12630	.54189	.00370	.55343	-.15045	.09824	.64818
27	-.12492	.09095	.10100	.76114	.07398	.03215	.61992
28	.01643	-.06530	.23340	.14187	.55117	-.22176	.43210
29	.73653	-.13204	-.01142	-.15219	.05481	.03306	.58730
30	-.04743	.06398	.56252	.21359	.19089	.20318	.44611
Eigenvalue	8.10185	2.83797	1.71607	1.43353	1.20323	1.09005	
Pct. of Var.	27.0	9.5	5.7	4.8	4.0	3.6	

Data Collention

For collecting the research data, the Teacher Feeling Questionnaire was distributed to the sampled 609 teachers working with the mentally retarded and returned by postage-paid mail. The respondents were asked to provide their demographic information, to give opinions for the Educational Perception Survey, and to express attitudes toward education of the mentally retarded. A follow-up letter with another copy of the TFQ was sent to those teachers who were unable to complete and return the first copy of the TFQ before the designated date. The final number of respondents who completed and returned the TFQ was 553, 330 junior high and 223 elementary school teachers, representing 90.81% of the primary sample.

Analysis of the Data

The statistical methods used in the study were the Pearson's product-moment correlation and multiple regression analysis. For investigating the research questions 1, 2, 3, and 4 of the study, the Pearson's product-moment correlations were calculated between teaching willingness and all the personal, familial, school, and social factors selected and were tested for statisical significance. For answering research question 5, the stepwise selection approach of multiple regression was applied to those personal, familial, school, and social variables which had statistically significant correlations with the total score of Teaching Feeling Scale in order to determine the best set of factors in predicting teaching willingness (Pedhazur, 1982). The alpha level of confidence was set at .05 for all tests of stat-

istical significance.

Description of the Variables

1.Teaching willingness (TW) : The total score of the Teaching Feeling Scale was used as teaching willingness indicator. The possible maximum score range is between 30 to 150. Higher score represents stronger teaching willingness.

2. Age : The chronological age of respondents was recored in years.

3.Sex : 1=male ; 2=female.

4.Academic Background (AB) : 1=senior high or normal schoo-l ; 2=junior college ; 3=college ; 4=graduate program.

5.Porfessional training (PT) : 1=finished ; 2=under training ; 3=no training.

6. Years of regular calss teaching (YRT) : The years of regular class teaching for respondents were indicated in years.

7. Years of special class teaching (YST) : They were recorded in years.

8. Age of starting special class teaching (AST) : It was indicated in years.

9.Self-decision for special class teaching (SDT) : 1=yes ; 2=no.

10.Religion belief (RB) : 1=very pious ; 2=general belief ; 3=no belief.

11.Aptitude for special class teaching (APT) : 1=very apt ; 2=apt ; 3=not apt.

12.Present health condition (PHC) : 1=very good ; 2=good ; 3=not good.

13.Present teaching achievement(PTA) : 1=very high ; 2=general ;

3=low.

14.Prior experience with the handicapped (PEH) : 1=very much ; 2=not much ; 3=no.

15.Marriage status (MS) : 1=not married ; 2=married.

16.Number of children (NC) : This was indicated by a respondent's actual number of children.

17.Family economic status (FES) : 1=very good ; 2=general ; 3=not good.

18.Family support level for special class teaching (FSL) : 1=very supportive ; 2=supportive ; 3=not supportive.

19.Present position (PP) : 1=elementary teacher ; 2=junior high teacher.

20. Teaching hours (TH) : This was indicatied by weekly total hours for teaching.

21.School support (SS) : 1=very supportive ; 2=supportive ; 3=not supportive.

22.Colleague relation (CR) : 1=very good ; 2=good ; 3=not good.

23.Exchange between regular and special class teachers (ERS) : 1=very good ; 2=good ; 3=not good.

24.Students' feedback (SF) : 1=very good ; 2=good ; 3=not good.

25.Teaching pressure (TP) : 1=very great ; 2=general ; 3=little.

26.Curriculum planning autonomy (CPA) : 1=very high ; 2=high ; 3=not high.

27.Special class environment (SCE) : 1=very simple ; 2=simple ; 3=not simple.

28.Students' charateristics (SC) : 1=very simple ; 2=simple ; 3=not simple.

29.Possibility to re-teach regular class (PRT) : 1=very great ; 2=some ; 3= littie

30.Parental support (PS) : 1=very supportive ; 2=supportive ; 3=not supportive.

31.Social acceptance (SA) : 1=very acceptable ; 2=acceptable ; 3=not acceptable.

32.Teachers' status (TS) : 1=very high ; 2=high ; 3=not high.

Results and Discussion

The results of the study are presented and discussed in this section. Among the returned 553 pieces of the Teacher Feeling Questionnaire, 527 were usable and appropriate for statistical processing. The descriptive statistics of basic demographic information of the respondents were depicted by frequencies and percentages and are shown in Tables 2-5. From these statistics, we could understand that most respondents are female, college graduates, have finished professional training and more junior high teachers were sampled than teachers from elementary schools. However, some 25 % of all respondents have still received no professional training in special education. This should be a great concern for those who are responsible for professional development of teachers working with the mentally handicapped.

Table 2.

Distribution of Sex

Sex	Frequency	Percent	Valid Percent
Male	129	24.5	24.5
Female	398	75.5	75.5
Total	527	100.0	100.0

Table 3.

Description of Academic Background

Academic Backgroung	Frequency	Percent	Valid Percent
Senior High	14	2.7	2.7
Junior College	150	28.5	28.6
College	322	61.1	61.3
Graduate Program	39	7.4	7.4
Missing Data	2	.4	Missing
Total	527	100.0	100.0

Table 4.

Analysis of Professional Training

Professional Training	Frequency	Percent	Valid Percent
Finished	351	66.6	67.2
Under Training	39	7.4	7.5
No Training	132	25.0	25.3
Missing Data	5	.9	Missing
Total	527	100.0	100.0

Table 5.

Description of Present Position

Present Position	Frequency	Percent	Valid Percent
Elementary Teacher	211	40.0	40.6
Junior High Teacher	309	58.6	59.4
Missing Data	7	1.3	Missing
Total	527	100.0	100.0

On the other hand, the descriptive statistics of all variables used in the study were depicted by means and atandard deviations and are presented in Table 6.

Table 6

Means and Standard Deviations of All Variables

Variables	*n*	Means	Standard Deviations
Teaching Willingness	485	122.6928	13.8213
Personal Factors			
Age	477	39.5094	9.1110
Sex	485	1.7526	.4320
AB	484	2.7438	.6374
PT	484	1.5682	.8666
YRT	464	9.8276	9.2148
YST	479	4.8539	4.5075
AST	479	34.3382	8.5559
SDT	482	1.1058	.3079
RB	481	1.9938	.6275
APT	484	1.8822	.4691
PHC	484	1.8326	.5137
PTA	484	1.8802	.5169
PEH	485	2.0990	.6253
Familial Factors			
MS	484	1.8161	.3878
NC	482	1.6950	1.1891
FES	485	1.9505	.2832
FSL	485	1.6928	.5663
School Factors			
PP	484	1.5702	.5160
TH	474	17.2426	6.7365
SS	483	1.6936	.6088
CR	484	1.4938	.5665
ERS	474	2.2595	.6455
SF	482	2.1598	.5051
TP	483	2.0787	.5634
CPA	481	1.5551	.5895
SCE	482	1.6390	.5456
SC	483	1.8054	.6627
PRT	480	2.1604	.6631
Social Factors			
PS	482	1.9398	.5495
SA	484	2.2438	.4799
TS	485	2.4062	.5320

The presentation and discussion of the results are organized according to the aforementioned research questions. In other words, the relationships between teaching willingness and the personal, familial, school, and social factors are consecutively presented and discussed. Finally, the best set of predictors for teaching willingness will be determined and introduced.

Relationships between Teaching Willingness and the Personal Factors

The personal factors selected for relating to teaching willingness were age, sex, academic background, professional training, years of regular class teaching, years of special class teaching, age of starting special class teaching, self-decision for special class teaching, religion belief, aptitude for special class teaching, present health condition, present teaching achievement, and prior experience with the handicapped. In Table 7 the correlations between teaching willingness and all these personal factors are displayed.

Table 7

Correlations of Teaching Willingness and the Personal Factors (*n* Shown in Parentheses)

Variables	Age	Sex	AB	PT	YRT	YST	AST
TW	-.0434 (477)	.0814 (485)	-.0540 (484)	-.0048 (484)	-.0400 (464)	-.0390 (479)	-.0385 (479)

Table 7 (Continued)

Variables	SDT	RB	APT	PHC	PTA	PEH
TW	-.2949** (482)	-.1427** (481)	-.4513** (484)	-.1757** (484)	-.3681** (484)	-.3238** (485)

** $P < .001$

Inspection of Table 7 indicates that six of all 13 correlation coefficients were statistically significant. The variable of self-decision for special class teaching (SDT) revealed a negative correlation (-.2949) with teaching willingness. This was statistically significant at the .001 level. It means that respondents who made decision themselves for special class teaching tended to have higher teaching willingness.

The variable of religion belief (RB) indicated a negative correlation (-.1427) wiht teaching willingness. This was statistically significant at the .001 level. It reveals that teachers who were pious in religion belief seemed to have strong teaching willingness.

The correlation coefficient between aptitude for special class teaching (APT) and teaching willingness was -.4513. This was statistically significant at the .001 level. The result indicates that if respondents considered themselves more apt for special class teaching, they usually had stronger willingness to teach mentally retarded students.

The factor of present health condition (PHC) had a negative significant relationship (-.1757) to teaching willingness. This was statistically significant at the .001 level. This relationship reveals that the healthier the respondents, the stronger they showed in teaching willingness.

The factor of present teaching achievement (PTA) was found to

have a negative and statistically significant relationship (-.3681, P <.001) to teaching willingness. It appears that teachers who had higher teaching achievement seemed to have stronger willingness to teach the mentally retarded.

The variable of prior experience with the handicapped (PEH) indicated a negative correlation (-.3238) wiht teaching willingness. This was statistically significant at the .001 level. It means that the more prior experience with the handicapped the respondents had, the higher willingness they might show in teaching the mentally retarded.

Other factors including age, sex, academic background (AB), professional training (PT), years of regular class teaching (YRT), years of special class teaching (YST), and age of starting special class teaching (AST) failed to have any statistically significant relationship, respectively, to the variable of teaching willingness. In other words, these factors seemed to have no significant power, respectively, to predict a teacher's willingness in teaching mentally retarded students.

From the above results and discussion, we could find that the personal factors of self-decision for special class teaching, religion belief, aptitude for special class teaching, present health condition, present teaching achievement, and prior experience with the handicapped may be associated with teaching willingness of teachers working with the mentally retarded. These factors are more or less related to a person's self-concept, and pertain to the affective field of education. Thus, it is not hard to understand that much more concern seem worth being given on affective domain of teacher education in orded to reinforce teacher willingness to work with the mentally retarded.

Relationships between Teaching Willingness and the Familial Factors

The familial factors selected for the study were marriage status (MS), number of children (NC), family economic status (FES), and family support level for special class teaching (FSL). The correlation coefficients between teaching willingness and all familial factors are presented in Table 8.

Table 8.

Correlations of Teaching Willingness and the Familial Factors (n Shown in Parentheses)

Variables	MS	NC	FES	FSL
TW	-.0096 (484)	-.0499 (482)	-.0894 (485)	-.3674** (485)

** P <.001

Inspection of Table 8 reveals that there is only one correlation coefficient which is statistically significant. The factor of family support level for special class teaching correlated significantly with the variable of teaching willingness (-.3674, P <.001). This finding may indicate that a teacher who receives much more family support for special class teaching tends to show stronger willingness to work with the mentally retarded. Family support seems to be an important familial factor contributing to a teacher's willingness for educating the mentally retarded. However, the variables of marriage status, number of children, and family economic status appear to be useless in predicting teacher willingness for working with mentally retarded

students. Essentially, family support pertains to the psychological dimension of familial factors. The importance of family support seems to coincide with the importance of self-concept which is also the psychological dimension of personal factors. Therefore, the psychological dimensions of both personal and familial factors are important in dealing with willingness to teach the mentally retarded.

Relationships between Teaching Willingness and the School Factors

The school factors investigated in the study were present position (PP), teaching hours (TH), and perceived school support (SS), colleague relation (CR), exchange between regular and special class teachers (ERS), students' feedback (SF), teaching pressure (TP), curriculum planning autonomy (CPA), special class environment (SCE),students'characteristics (SC), and possibility to re-teach regular class (PRT), In Table 9 the correlation coefficients between teaching willingness and the school factors are presented.

Table 9

Correlations of Teaching Willingness and the School Factors (*n* Shown in Parentheses)

Variables	PP	TH	SS	CR	ERS
TW	.0018 (484)	.0445 (474)	−.2199** (483)	−.1674** (484)	−.1749** (474)

** $P < .001$

Table 9 (Continued)

Variables	SF	TP	CPA	SCE	SC	PRT
TW	-.2333** (482)	-.0626 (483)	-.2456** (481)	-.1803** (482)	-.2058** (483)	-.0163 (480)

** $P < .001$

Inspection of Table 9 shows that 7 correlation coefficients between teaching willingness and the school factors were statistically significant. The factors of present position, teaching hours, teaching pressure, and possibility to re-teach regular class failed to have statistically significant relationships to the variable of teaching willingness.

The factor of school support indicated a negative correlation (-.2199) with the variable of teaching willingness. This was statistically significant at the .001 level. This relationship revealed that teachers obtaining more school support had higher willingness to teach the mentally retarded.

The factor of colleague relation was found to have a statistically significant correlation (-.1674, $P < .001$) with the variable of teaching willingness. This relationship indicated that teachers had better colleague relation might show stornger willingness to work with mentally retarded students.

The factor of exchange between regular and special class teachers was found to have a statistically significant correlation (-.1749, $P < .001$) with the variable of teaching willingness. This result revealed that better exchange program between regular and special class teachers might help enhance teachers' willingness to work with the mentally retarded.

The factor of students' feedback had statistically significant

relationship to the variable of teaching willingness (-.2333, P <.001). This finding indicated that teachers perceiving better feedback from students might have higher willingness to work with the mentally retarded.

The factor of curriculum planning autonomy indicated a negative correlation (-.2456) with the variable of teaching willingness. This was statistically significant at the .001 level. This relationship revealed that respondents having higher autonomy in curriculum planning usually showed stronger willingness to work with the mentally retarded.

The factor of special class environment was found to have a statistically significant correlation (-.1803, P <.001) with the varitable of teaching willingness. This relationship indicated that teachers perceiving special class environment to be simpler usually had higher willingness to teach mentally retarded students.

The factor of students' characteristics was found to have a statistically significant correlation (-.2058, P <.001) with the variable of teaching willingness. This result revealed that respondents perceiving students' characteristics to be simpler might indicate stronger willingness to teach the mentally retarded.

From the above results and discussion, we could realize that the school factors of school support, colleague relation, exchange between regular and special class teachers, students' feedback, curriculum planning autonomy, special class environment, and students' characteristics are related to teachers' willingness to work with the mentally retarded. On the one hand, these school factors are more or less reflections of an individual's subjective perceptions. Therefore, modification of teachers' perceptions in regard to these school factors may contribute to influence their willingness to teach mentally re-

tarded students. On the other hand, strong school support, good colleague relation, opportunity for exchange between regular and special class teachers, and curriculum planning autonomy are also important and need to be considered by school administrators in order to increase teacher willingness to work with the mentally retarded.

Relationships between Teaching Willingness and the Social Factors

The social factors included in the study were perceived parental support (PS), social acceptance (SA), and teachers' status (TS). The correlation coefficients between teaching willingness and the social factors are displayed in Table 10.

Table 10.

Correlations of Teaching Willingness and the Social Factors
(*n* Shown in Parentheses)

Variables	PS	SA	TS
TW	−.2332** (482)	−.1615** (484)	−.2943** (485)

** $P < .001$

Inspection of Table 10 indicates that all of the correlation coefficients between teaching willingness and the social factors were statistically significant. The factor of parental support was found to have a significant correlation (-0.2332, $P < .001$) with the variable of teaching willingness. This result implies that the more the parental support to education of the mentally retarded, the higher willingness the respondents may have in teaching retarded students.

The factor of social acceptance had a negative significant relationship (-.1615, $P < .001$) to the variable of teaching willingness. It indicated that social acceptance of education of the mentally retarded may contribute to increase teachers' willingness to work with mentally retarded students. The factor of teachers' status had statistically significant relationship to the variable of teaching willingness (-0.2943, $P < .001$). This means that the higher status a teacher perceived himself／herself, the stronger willingness he／she might show in teaching the mentally retarded.

All the selected social factors parental support, social acceptance, and teachers' status reveal their close associations with willingness of teachers working with the mentally retarded. In essence, parent support seems to be part of social acceptance. In addition, teachers' status is also related to social acceptance. Thus, educating the public to accept and support the education of the mentally retarded seems important for the welfare of this disadvantaged group and helpful for enhancing willingness of teachers working with retarded students.

Determination of the Best Set of Predictors for Teaching Willingness

In view of Tables 7, 8, 9, and 10, the factors self-decision for special class teaching, religion belief, aptitude for special class teaching, present health condition, present teaching achievement, prior experience with the handicapped, family support level for special class teaching, school support, colleague relation, exchange between regular and special class teachers, students' feedback, curriculum planning autonomy, special class environment, students' characteristics, parental support, social acceptance, and teachers' status, respective-

ly, was found to have a statistically significant relationship to teaching willingness. These 17 factors were included in the stepwise selection of multiple regression analysis to determine their contributions to the prediction of teaching willingness. As a result of multiple regression analysis, the best set of factors for predicting teaching willingness was retained in the equation. The summary of factors in the equation was presented in Table 11.

Table 11

Factors in the Equation

Factor	R	R^2	R^2 Change	Beta	T	Sig. T
APT	.46431	.21558	.21558	-.20887	-4.713	.0000
PEH	.52493	.27555	.05997	-.18957	-4.929	.0000
TS	.55234	.30508	.02953	-.09196	-2.299	.0220
SDT	.57596	.33173	.02665	-.16445	-4.279	.0000
SC	.59483	.35383	.02210	-.12823	-3.426	.0007
PTA	.60773	.36934	.01551	-.12216	-2.913	.0038
CPA	.61874	.38284	.01350	-.11070	-2.854	.0045
ERS	.62872	.39530	.01246	-.10189	-2.662	.0081
FSL	.63558	.40396	.00866	-.09419	-2.230	.0262
SS	.63995	.40954	.00558	-.07909	-2.040	.0420

R^2 of Full Model=.40954 df=10, 441

F =30.58693*** *** P <.0001

Inspection of Table 11 reveals that ten factors of aptitude for special class teaching, prior experience with the handicapped, teachers' status, self-decision for special class teaching, students' characteristics, present teaching achievement, curriculum planning autonomy, exchange between regular and special class teachers, family support level for special class teaching, and school support were retained in the equation due to their statistically significant contributions to predict teaching willingness. Other 7 factors of religion belief, present health condition, colleague relation, students'

feedback, special class environment, parental support, and social acceptance did not have statistically significant contributions to predict teaching willingness and were not included in the equation.

In the full model with the ten factors included in the equation, an R-Square of .40954 was obtained. This value was statistically significant at the .0001 level. This means that the ten factors accounted for 40.954% of the variance of the criterion, teaching willingness. In other words, approximately 41% of the variability in the total teaching willingness score can be explained by these ten predictor variables when combined. Since all these ten factors made statistically significant contributions to the full model, the set of variables aptitude for special class teaching, prior experience with the handicapped, teachers' status, self-decision for special class teaching, students' characteristics, present teaching achievement, curriculum planning autonomy, exchange between regular and spceial class teachers, family support level for special class teaching, and school support might emerge as the best combination of factors to predict teaching willingness in this study.

Conclusions and Recommendations

Conclusions

The data on teaching willingness and personal, familial, school, as well as social factor information of 527 elementary and junior high teachers working with the mentally retarded were collected and statistically analyzed in this study. From the section of results and discussion, several conclusions could be derived as follows :

1. The personal factors self-decision for special class teaching,

religion belief, aptitude for special class teaching, present health condition, present teaching achievement and prior experience with the handicapped, respectively, revealed a statistically significant relationship to the variable of teaching willingness.

2. The personal factors age, sex, academic background, professional training, years of regular class teaching, years of special class teaching, and age of starting special class teaching, respectively, failed to have any statistically significant relationship to the variable of teaching willingness.

3. A statistically significant correlation was found between the familial factor of family support level for special class teaching and the variable of teaching willingness.

4. The familial factors marriage status, number of children, and family economic status did not have any statistically significant relationship to teaching willingness.

5. The school factors school support, colleague relation, exchange between regular and special class teachers, students' feedback, curriculum planning autonomy, special class environment, and students' characteristics, respectively, significantly correlated with the variable of teaching willingness.

6. The school factors of present position, teaching hours, teaching pressure, and possibility to re-teach regular class failed to have any statistically significant relationship to the variable of teaching willingness.

7. The social factors of parental support, social acceptance, and teachers' status, respectively, had a significant relationship to the variable of teaching willingness.

8. The best set of factors to predict teaching willingness of teachers working with the mentally retarded in this study was the

combination of the variables aptitude for special class teaching, prior experience with the handicapped, teachers' status, self-decision for special class teaching, students' characteristics, present teaching achievement, curriculum planning autonomy, exchange between regular and special class teachers, family support level for special class teaching, and school support.

Recommendations

Based on the findings and the possible limitations of this study, the following recommendations are made for selection, training, and career guidance of teachers working with the mentally retarded and future research :

1. Since the personal factors of self-decision for special class teaching, religion belief, aptitude for special class teaching, present health condition, and present teaching achievement are associated with teacher willingness to educate the mentally retarded, information related to these factors is worth being collected in order to recruit right persons to work with the mentally retarded or to give appropriate counseling for teachers who are working in this education field.

2. Because the personal factor of prior experience with the handicapped has a significant relationship to teaching willingness, voluntary work for service of the mentally retarded from students of teacher training institutions should be encouraged.

3. Since the familial factor of family support appears to be important determinant of teaching willingness, knowledge of a person's family support level for special class teaching might be taken into account for selecting teachers to work with the mentally retarded. On the other hand, the psychological nature of family support suggests

the importance of communication between a teacher and his／her family members before he／she decides to work with the mentally retarded.

4. Due to the importance of self-concept in determining teacher willingness, affective education in regard to helping or altruistic attitudes should be included in the teacher training programs of the mentally retarded.

5. School administrators must pay great attention to teachers' needs for sufficient support, good colleague relation, opportunity for exchange between regular and special class teachers, and curriculum planning autonomy in order to develop a conducive teaching environment and augment their willingness to work with the mentally retarded.

6. The development of positive perceptions with respect to education of the mentally retarded is essential and should be included in the pre-service and in-service training programs for teachers of this disadvantaged population.

7. Owing to the close relationship between social acceptance and teacher willingness to work with the mentally retarded, social support to education of the mentally retarded should be encouraged through various social education movements in order to enhance teaching willingness of this special education area.

8. The knowledge of a teacher's perceptions in regard to the set of variables aptitude for special class teaching, prior experience with the handicapped, teachers' status, self-decision for special class teaching, students' characteristics, present teaching achievement, curriculum planning autonomy, exchange between regular and special class teachers, family support level for special class teaching, and school support could be used in teacher selection due to its significant val-

idity to predict willingness of teachers working with the mentally retarded.

9. Future research is needed to identify other factors which may be predictors of teaching willingness; i.e., vocational maturity, emotional stability, work value, professional competence and social adjustment.

10. Research using those respondents who are working with the mentally retarded but from social welfare institutions should be undertaken in the future.

11. Correlates of teaching willingness among teachers of other special education areas should be investigated in the future.

12. Research should be undertaken using different instruments that measure teaching willingness in order to determine the concurrent validity of the Teaching Feeling Scale used in the study.

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啓智教育教師任教意願預測因素之研究

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摘 要

本研究之目的，乃在探討啓智教育教師的任教意願與經選定之個人、家庭、學校、及社會因素的關係。

本研究之對象，係來自臺灣地區的 527 名國民中小學啓智教育教師。蒐集資料所用的研究工具爲教師感受問卷。資料分析所採用的方法包括皮爾遜積差相關與多元回歸分析。

從本研究所獲致的結論如下：

1.任教啓智班的自我抉擇、宗教信仰、從事啓智教育的性向、目前的健康狀況、目前任教啓智班的成就感、與任教啓智班前接觸殘障的經驗這些個人因素，各顯示與任教意願在統計上有顯著的關係。

2.年齡、性別、最高學歷、專業訓練、普通班任教年資、啓智班任教年資、及開始任教啓智班之年齡這些個人因素，各與任教意願無統計上的顯著相關。

3.家人對任教啓智班的支持程度這一家庭因素和任教意願在統計上呈現顯著的相關。

4.婚姻狀況、子女人數、及家庭經濟狀況這些家庭因素，與任教意願並無任何統計上的顯著關係。

5.學校支持程度、同事關係、啓智班與普通班教師的交流情形、啓智班學生學習的反應情形、啓智教育教師對課程經營的自主性、啓智班的環境、及智能不足學生的特性這些學校因素，各和任教意願有顯著的相關。

6.目前現職、授課時數、啓智教育的教學壓力、及回到普通班任教的可能性這些學校因素，和任教意願在統計上並未出現任何顯著的相關。

7.家長的支持程度、社會的接納程度、及啓智教育教師的地位這些社會因素，各與任教意願有顯著的關係。

8.在本研究中，用以預測啓智教育教師任教意願最好的因素組合，是從事啓智教育的性向、任教啓智班前接觸殘障的經驗、啓智教育教師的地位、任教啓智班的自我抉擇、智能不足學生的特性、目前任教啓智班的成就感、啓智教育教師對課程經營的自主性、啓智班與普通班教師的交流情形、家人對任教啓智班的支持程度、及學校支持程度這些變項的結合。