

Teachers' Attitudes Toward Integration in Hong Kong

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Eighty-three regular class teachers drawn from five primary schools in Hong Kong responded to a survey measuring how they felt about integrating students with disabilities into their regular classes. At the time of the study, two of the schools were implementing a policy of integration set out by the Hong Kong Education Department. Results indicated that preparation for integration was significantly related to willingness to accept students with disabilities into regular classes. Age of teacher, experience teaching students with disabilities and teaching in an integrated school were not significantly related to willingness to integrate. Students with physical problems were favored for integration over all other categories of exceptionality, the least acceptable students being those with emotional/behavioral problems. While 64% of the teachers indicated a willingness to integrate students with disabilities if support services were available, many teachers expressed ambivalent feelings toward the policy of integration. Teachers placed great emphasis on the need for resources and training in order to implement integration successfully in the schools of Hong Kong.

In many countries around the world, the primary purpose of educational programs for students with disabilities has been the promotion of their fullest possible participation in society as adults. To meet this goal, the least restrictive environment principle has been used to guide the placement of such students, the rationale being that the more normal or regular the educational environment, the greater the expected academic and social development for such students. Indeed, legislation supporting this principle was enacted in the United States in 1975, in the United Kingdom in 1981, and was endorsed by UNESCO in its 1994 Salamanca Statement.

At present, however, there is not a consensus on which educational setting represents the least restrictive environment (Winzer, 1998). At one end of the spectrum are those who favor only partial integration of students with disabilities into regular classes. They argue that not all students with disabilities can be managed or taught effectively in regular classes, thus necessitating special class placement for part or all of the school day for some students. At the other extreme are those who advocate the placement of all students with disabilities in regular classes all of the time. These full inclusionists maintain that this degree of integration can take place only if the culture of the school is highly supportive of the education of all students with disabilities, a situation that is not the norm in many school systems (Ainscow, 1999; Slee & Weiner, 2001). They further argue that the relatively recent school effectiveness movement favored in many parts of the world should mean effectiveness for all learners and must not exclude students with disabilities from participating in regular classes due to an emphasis on academic outcomes.

The movement toward integration in the schools of Hong Kong has been relatively recent as students with disabilities traditionally have been placed in either special schools or in special classes in regular schools, placement depending on the degree of severity of the disability. While special education has been for the most part segregated, there have been informal attempts to integrate students with disabilities into regular classes. These efforts have involved students with hidden disabilities such as those with mild learning problems, and the expectation has been that these students would have to adjust to the curriculum rather than adjusting the curriculum to the student (Wong, Pearson, Ip, & Lo, 1999). In 1997, a more systematic implementation of integration was attempted in a two-year pilot study on integration. This pilot study included a total of 48 students spread across seven primary and two secondary schools. Participants fell into one of the following categories: mild intellectual disabilities, sensory impairments (visual or hearing), students of average intelligence with autistic tendencies, and physical handicaps (Crawford, Heung, Yip, Yuen, & Yim, 1999).

As a consequence of this project, in 2001–2002 there are 66 schools in Hong Kong following what has been described as a whole-school approach to integration. In addition to developing Individual Educational Plans for students with disabilities, the whole-school approach supports such practices as adapting the curriculum to the needs of individual students, modifying teaching strategies and employing assistive technology, incorporating peer

support activities among regular and special students such as peer tutoring, and introducing collaborative planning and cooperative teaching between regular and resource teachers.

These innovative approaches to teaching require a faculty dedicated to a high degree of integration and considerable effort will be required from regular class teachers in Hong Kong to learn and apply the practices inherent in the whole-school approach. Unfortunately research suggests that regular class teachers are not easily persuaded to make such adaptations. Indeed there is considerable evidence that these teachers continue to employ traditional whole-group instructional methods rather than individualizing instruction when teaching students with disabilities in their classes (Scott, Vitale, & Masten, 1998).

In an effort to understand the reluctance of teachers to adapt instruction, numerous studies have attempted to identify the significant influences on teachers' attitudes toward integration (Cook, 2001; Hanrahan, Goodman, & Rapagna, 1990; Pearman, Barnhart, Huang, & Mellblom, 1992; Semmel, Abernathy, Butera, & Lesar, 1991; Tait & Purdie, 2000). To this end, many researchers have focused on three variables, namely teacher preparation for integration, age of teacher, and experience teaching children with disabilities (Bender, Vail, & Scott, 1995; Hastings, Hewes, Lock, & Witting, 1996; Soodak, Podell, & Lehman, 1998; Taverner, Hardman, & Skidmore, 1997; Taylor, Richards, Goldstein, & Schilit, 1997). The results of these investigations have suggested that these three variables may not be independent of each other. There is much evidence that teachers who have received instruction on integration have more positive attitudes toward this practice than have teachers without such instruction (Bender et al.; Taverner et al.; Taylor, et al.). Indeed, Scruggs and Mastropieri (1996), after reviewing 28 studies on teachers' attitudes toward integration conducted between 1958 and 1995, recommended among other things that teachers have systematic and intensive pre- or in-service training on teaching classes containing children with disabilities. Research has also indicated that teachers' age is related to their attitudes toward integration, with older teachers having a less positive attitude (Soodak et al.; Taverner et al.). However, studies by Bender et al. and Taverner et al. have found that older teachers are less likely to have had pre- or in-service instruction on teaching children with disabilities in regular classes. Soodak et al. have suggested that the preparation factor may account for the negative correlation between age of teacher and attitude toward integration. Alternatively, they have also proposed the possibility that older teachers, having tried and failed to teach children

with disabilities in regular settings, have developed negative attitudes toward the practice of integration.

Research on the relationship between experience teaching children with disabilities and attitude toward integration is mixed. While Hastings et al. (1996) reported that experience with children with disabilities improves attitudes toward integration, Bender et al. (1995) found no relationship and Wilczenski (1993) reported a negative correlation between experience teaching children with disabilities and positive attitude toward integration. These inconsistent findings may reflect, in part, the fact that older teachers are more likely to have taught children with disabilities but without much preparation for this responsibility.

There is little research available on teachers' attitudes toward integration in Hong Kong. However, Crawford et al. (1999) in their evaluation of the 1997 pilot study reported a number of findings that were somewhat consistent with previous research on teachers' attitudes. Teachers who were not involved in the integrating process were found to be more likely to favor segregated placements for students with disabilities than were teachers working with such students. As the pilot project proceeded, teachers' attitudes toward integration improved, suggesting that increased knowledge and competence may result in improved attitudes toward this policy. Crawford et al. also reported that both resource teachers and regular teachers had little confidence in their ability to undertake such practices as cooperative teaching and individualizing programs and that teachers requested that increased training be made available to them in these areas. This need for increased training is supported by the findings of Wong et al. (1999). As part of their study on students informally integrated into regular schools, they sent out questionnaires to over 800 schools in Hong Kong. The responses indicated that while many teachers favored integration, there were widespread concerns about insufficient resources and a lack of teacher training.

The whole-school approach to integration is currently being strongly promoted by the Hong Kong Education Department (2002). Indeed, by 2004–2005 it is projected that over 140 schools will be implementing this policy. Given the level of support for whole-school integration, it seemed timely to look at teachers' attitudes toward integration in Hong Kong as teachers, in the final analysis, are the ones who have to make integration happen. Knowledge of how such variables as training in special education, age, and experience with children with disabilities relate to teachers' willingness to integrate students with disabilities into their regular classes should facilitate the implementation of whole-school integration in Hong Kong. This study

will test the hypotheses that age, experience teaching students with disabilities, training in special education, and presence in an integrated school are significantly related to willingness to integrate students with disabilities into regular classes. In addition, teachers' overall attitudes to integration will be measured.

Method

Instrumentation

The questionnaire developed for this study was divided into two parts. The first part contained factual items related to the teachers' backgrounds such as age, sex, teaching experience, types of exceptional students taught, and educational background. Using four-point Likert scales, teachers were also asked about their preparation in the area of integrated education. In addition, teachers were asked to choose the types of exceptionalities that would most benefit from integration from the following list: hearing impairments, visual impairments, communication disorders, learning disabilities, emotional disorders, physical disabilities, mental retardation, and behavioral disorders. As a measure of their willingness to integrate, teachers were asked to give a "yes/no" response to the following question: "If the decision were up to you, and knowing that you would have support services, would you be willing to have a special needs student in your classroom?"

The second part included a questionnaire developed by Fernandez (1994) to measure teachers' attitudes toward integration. This instrument contained the following five scales: teachers' expectations of having behavioral problems when integrating students with disabilities, the effects of integration on non-disabled students, teachers' views on the most appropriate educational placement for students with disabilities, teachers' philosophy of integration, and teachers' preparation for integration. These scales, based on factor analysis, represented areas of concern expressed by teachers when faced with the possibility of implementing an integration policy (Gans, 1985; Garvar-Pinhas & Schmelkin, 1989). Reliability data for the five scales designed by Fernandez were considered acceptable, the alpha coefficients ranging from .73 to .87. In addition to the scales by Fernandez, a sixth scale was constructed to measure teachers' views on the nature and level of support required when integrating a child with a disability into a regular class. Items on each of the six scales took the form of a statement such as "Integration is a desirable educational practice." Respondents were asked to choose one of five response categories ranging from "strongly agree" to "strongly disagree."

The questionnaire was originally constructed in English. It was then translated into Chinese by the first author. A second translator was employed to translate the questionnaire back into English and minor discrepancies were resolved.

The definition of integration used in this study was consistent with the definition employed for the whole-school approach presently being used by the Hong Kong Education Department (2002). The questionnaire included the following instructions: "In Hong Kong, some children with disabilities are being placed in regular schools for the whole school day. In this questionnaire we will use the term integration to describe this policy. In the following questions, you will be asked for your opinion on this policy of integration."

Sample

For this study on attitudes toward integration, it was decided to focus on primary school teachers as integration policy is normally first implemented at the primary level and the majority of schools currently integrating students are at the primary level. In Hong Kong, there are aided, government and direct subsidy schools with the majority of them currently implementing whole-school integration falling into the aided category. Schools can also be either single sex or mixed, the larger group being mixed sex schools. Consequently, the sample included teachers from mixed sex, aided schools. There are three main areas in Hong Kong: Kowloon, the New Territories, and Hong Kong Island. As there are approximately twice as many schools in Kowloon and the New Territories as on Hong Kong Island, the sample was drawn from the two larger areas — two schools were from the New Territories and three were from Kowloon. Finally, as a certain percentage of the schools in Hong Kong are integrated, the sample included two integrated schools, one from the New Territories and the other from Kowloon.

In summary, the sample for the study was composed of five mixed sex, primary schools representing the aided sector. Three schools were from Kowloon and two were from the New Territories. At the time of the study, two schools were implementing a policy of integration while three were not. One hundred and thirty questionnaires were distributed to the five schools. In addition to the questionnaires, teachers received a return envelope and consent form which indicated that anonymity was guaranteed. Eighty-three teachers completed the questionnaire resulting in a response rate of 64%.

Results

The sample of 83 respondents was composed of 69 females and 14 males. Although 72% of the respondents reported having some teaching experience with children with disabilities, over half (51.8%) indicated that they had no formal or in-service training in special education and the majority (55.4%) also felt that they did not feel prepared to teach such students. Despite these difficulties, 64.4% indicated a willingness to integrate students with disabilities into their regular classes if support services were available.

Two-thirds of the sample indicated that the decision to integrate should depend on the type of disability. The percentage of teachers favoring integration for each type of disability is presented in Table 1.

Table 1 Type of Disability Favored for Integration

Type of disability	Percent favoring
Physical disabilities	66
Language disorders	35
Intellectual disabilities	24
Learning disabilities	22
Hearing impairments	21
Emotional problems	15
Visual impairments	13
Behavioral problems	11

Teachers' Responses to the Integration Scales

The responses of the sample to the six attitude scales are displayed in Table 2. The first scale measured the degree to which teachers associated students with disabilities with presenting behavioral problems in regular classrooms. A score of 5 indicated that teachers did not view students with disabilities as displaying behavioral problems while a score of 25 suggested that such students would present serious behavioral problems. A score of 15 represented a neutral opinion. The mean score was 18.11 with a standard

Table 2 Teachers' Responses to Integration Scales

Scales	Mean	SD	Range
Behavioral problems in classroom	18.11	2.95	5–25
Effects on non-disabled students	17.04	3.47	5–25
Most appropriate educational placements	13.16	2.04	4–20
Teachers' preparation for integration	14.71	1.94	4–20
General attitude toward integration	15.99	3.20	5–25
Teachers supports	24.84	2.84	6–30

deviation of 2.95, suggesting that teachers viewed students with disabilities as displaying behavioral problems in their regular classes.

The second scale measured the effect of integration on non-disabled students. A score of 5 suggested that teachers did not view the presence of students with disabilities in regular classes as having a negative effect on non-disabled students while a score of 25 indicated the opposite. A score of 15 represented a neutral opinion. The mean score on this scale was 17.04 with a standard deviation of 3.47, suggesting that teachers tended to view the presence of students with disabilities in regular classes as having a negative effect on non-disabled students.

The third scale measured whether teachers believed that students would learn more in an integrated or a segregated classroom. Scores ranged from 4 to 20 with 12 being neutral. The mean score was 13.16 with a standard deviation of 2.04, suggesting that teachers slightly favored segregated over integrated classrooms in terms of the most appropriate settings for students with disabilities.

The fourth scale measured the teachers' perceived level of preparation for integrating students with disabilities into their regular classes. Scores ranged from 4 to 20 with 12 representing neutral. The mean score was 14.71 with a standard deviation of 1.94, suggesting that teachers felt somewhat unprepared for the task of integrating students with disabilities into their regular classes.

The fifth scale measured teachers' general attitudes toward the philosophy of integration of students with disabilities into regular classes. Scores ranged from 5 to 25 with 15 representing neutral. The mean score was 15.99 with a standard deviation of 3.2, suggesting that teachers' attitudes were somewhat ambivalent toward the philosophy of integration.

The final scale measured the amount of support and resources that teachers believed should be available to support integration. Scores ranged from 6 to 30 with 18 being neutral. The mean score was 24.84 with a standard deviation of 2.84, indicating that teachers felt quite strongly that increased resources were necessary for successful integration.

Age and Willingness to Integrate

Eighty-one teachers responded to the questions on age and willingness to integrate. Teachers between the ages of 19–29 were compared with teachers of 30 years or over according to their willingness to integrate students with disabilities into their classes. Thirteen of 18 teachers under 30 were willing

to accept a child with a disability into their regular classes as compared to 40 of 63 teachers who were 30 years of age or older. A chi square test (SPSSX CROSSTABS) indicated that these groups did not differ significantly in their willingness to integrate students with disabilities. The results are presented in Table 3.

Table 3 Age and Willingness to Integrate

Willingness to integrate	19–29 years of age	30 years or over
Yes	13	40
No	5	23

* Chi square = .472; $p = .492$

Experience Teaching Students with Disabilities and Willingness to Integrate

Eighty-two teachers responded to the questions on teaching experience and willingness to integrate. Fifty-six teachers in the study were currently teaching students with disabilities in their regular classrooms while 26 teachers were not. When asked if they would accept a child with a disability into their regular classes, 40 of the 56 teachers currently teaching such a student gave an affirmative response while 13 of the 26 teachers without such a child in their regular classes replied negatively. A chi square test (SPSSX CROSSTABS) indicated that these groups did not differ significantly in their willingness to integrate students with disabilities. The results are presented in Table 4.

Table 4 Experience Teaching and Willingness to Integrate

Willingness to integrate	Currently teaching a student with a disability	Not teaching a student with a disability
Yes	40	13
No	16	13

* Chi square = 3.567; $p = .059$

Pre- and In-service Training and Willingness to Integrate

Eighty-two teachers responded to the questions relating to pre- and in-service training and willingness to integrate. Teachers were divided into two groups according to the amount of pre- or in-service preparation they had received for integration. Thirty-nine teachers who reported receiving some preparation for integration were compared with 43 teachers without any such preparation

on willingness to integrate. Thirty of the 39 teachers with preparation were willing to integrate while 23 of the 43 teachers without preparation were also willing to do so. A chi square test (SPSSX CROSSTABS) indicated that these differences were significant at the .027 level. The results are presented in Table 5.

Table 5 Pre- and In-service Training and Willingness to Integrate

Willingness to integrate	Some preparation for integration	No preparation for integration
Yes	30	23
No	9	20

* Chi square = 4.91; $p = .027$

Type of School and Willingness to Integrate

Eighty-two teachers responded to the questions relating to type of school and willingness to integrate. At the time of the study, 34 teachers taught in an integrated school while 48 teachers taught in non-integrated schools. Twenty-four of the 34 teachers in integrated schools were willing to accept a child with a disability into their regular classes as compared to 29 of the 48 teachers in non-integrated schools. A chi square test (SPSSX CROSSTABS) indicated that these groups did not differ significantly in their willingness to integrate students with disabilities. The results are presented in Table 6.

Table 6 Type of School and Willingness to Integrate

Willingness to integrate	Teaching in an integrated school	Teaching in a non-integrated school
Yes	24	29
No	10	19

* Chi square = .901; $p = .343$

Discussion

The results of this study indicate that teachers do not rate all disabilities as equal when it comes to the most suitable category for integration. Indeed, all categories except physical disabilities have very low ratings in terms of acceptability for integration. These results may reflect a general lack of knowledge by teachers of the types of exceptional children and the practices required for successful integration. Students with physical disabilities may be favored for integration as they are viewed as requiring little curriculum

adaptation. Despite the very low ratings for all categories other than physical disabilities, the order of preferences reported in this study is consistent with that reported in the literature. Teachers least favor students with emotional/behavioral problems when integrating exceptional children into regular classes (Hanrahan et al., 1990; Wilczenski, 1993).

Of the four hypotheses for this study, only the relationship between pre- and in-service training and willingness to integrate was confirmed. Age of teacher, experience teaching special needs children, and type of school were not found to be significantly related to willingness to integrate.

Soodak et al. (1998) have suggested an interaction between pre-service preparation for integration and age of teachers, the explanation being that younger teachers are more likely to have received pre-service instruction on integration and, consequently, may feel more confident about having students with disabilities in their classes. No such a relationship was found in the present study. This raises the question about the amount of content on integration included in the pre-service teacher education programs in Hong Kong. In this study, teachers were asked if they had ever received any training or education in the integration of students with disabilities with the response categories being: none, a little, quite a bit, a lot. Of interest is the fact that not a single teacher out of the sample of 83 reported receiving *a lot* of formal instruction in the area of integration.

Although the relationship between experience and willingness to integrate was not significant, it was very close to significance (.059). This suggests that experience teaching children with disabilities promotes a more favorable attitude toward integration. A larger sample in the study may have established this relationship.

Teaching in an integrated school did not have any significant influence on willingness to integrate. The rationale for this hypothesis was that teachers in integrated schools would have more in-service training for integration as well as more experience teaching children with disabilities than would teachers in non-integrated schools. Further analysis of the data indicated that while 70% of the teachers in the integrated schools reported teaching students with disabilities, 60% of the teachers in the non-integrated schools also reported teaching such students. The latter finding was not expected and may reflect a tendency for teachers in non-integrated schools to over-identify students with disabilities. A lack of pre- and in-service instruction on integration may have resulted in some confusion regarding the criteria for classification into the various categories of exceptionalities. An examination of the types of disabilities identified by each group of teachers

indicated that the teachers in integrated schools reported teaching more children with physical disabilities than did those in the non-integrated settings (16% vs. 2%) while those in the non-integrated schools reportedly taught more learning disabled and emotionally disturbed children than did those in the integrated settings (53% vs. 35%). This may also reflect the hidden disability phenomenon reported for non-integrated schools by Wong et al. (1999).

The Fernandez (1994) scales provided a clear overview of the attitudes of the sample of Hong Kong teachers toward integration. In general, teachers were somewhat ambivalent toward the policy of integration. They tended to view students with disabilities as having behavioral problems and negatively influencing non-disabled students when integrated into regular classes. Segregated settings were slightly favored over integrated settings for students with disabilities and teachers felt unprepared to teach these students in integrated classrooms. In addition, the scale on resources constructed for this study revealed the overwhelming belief that accommodations such as reduced class size, the availability of consultants, and special budget allocations were crucial if integration were to be successful.

These findings are consistent with previous studies on integration in Hong Kong. Wong et al. (1999) analyzed the responses of 77 Hong Kong teachers to integration. They reported that the teachers' main concern over integration was a lack of resources, followed by a lack of teacher training. They also found that some teachers viewed children with disabilities as prone to causing classroom disturbances that resulted in reduced attention to their non-disabled peers. A minority but significant number of teachers supported segregated classrooms for students with disabilities, particularly those who were behaviorally disabled. In their review of the Hong Kong government's pilot project on integration, Crawford et al. (1999) reported similar results. While continuous involvement in the integration process appeared to improve attitudes toward integration, their report also suggested that significant numbers of resource and regular teachers felt that segregation was a viable option for students with disabilities and that integrated classrooms were not beneficial for non-disabled students. In addition, teachers in their study indicated the need for increased resources, more professional support, and smaller class sizes.

It is obvious that teachers in Hong Kong are not currently ardent supporters of the philosophy of integration. This may not be surprising given that most schools are reported to have large classes, encourage competition, and at the secondary level follow a banded system based on a centralized

curriculum that emphasizes the academic rather than the practical (Wong et al., 1999). These practices are at odds with those facilitating integration such as within-class differentiation of the curriculum and cooperative learning (Hong Kong Education Department, 2002). Given this conflict, proponents of integration in Hong Kong will probably require much resolve and patience. However, 64% of the sample did indicate a willingness to integrate a student with a disability if adequate supports were available. Winzer (1998) has observed that research has indicated that teacher support for the philosophy of integration is consistently higher than their actual commitment to integration. Nevertheless, if resources are made available, there is clearly a willingness among many teachers in Hong Kong to give integration a chance. The tension between the whole-school approach toward integration and the highly structured and competitive school system in Hong Kong appears similar to those reported between the integration and school effectiveness movements in other parts of the world. Florian and Rouse (2001) have suggested closer links between researchers of the integration and effectiveness movements in order to resolve some of the conflicts faced by teachers attempting to meet the demands of integration and high academic standards. A similar dialogue between the corresponding parties in the Hong Kong system would seem advisable.

Crawford et al. (1999) have recommended that pre- and in-service teacher education programs in Hong Kong include components on integration. Given the results of the current study, we strongly endorse this recommendation. It is suggested that this intervention be as intensive as possible. In some jurisdictions where integration has been implemented, pre-service education programs include a required course on exceptionality and sometimes a second required course on managing the integrated classroom. In addition, as suggested by Hastings et al. (1996), both pre- and in-service courses on integration should include hands-on experiences with children with disabilities. These experiences could be provided through the practice teaching component of the pre-service programs or through field experiences for in-service programs.

Limitations and Suggestions

Care was taken in the present study to obtain a representative sample of elementary teachers in Hong Kong. However, the system is complex in terms of the different types of schools and future studies might attempt to include teachers from all school types. While this would necessitate a larger sample

than that employed in the present study, such a sample would not only permit a verification of the present findings but also provide a better test of the relationship between experience teaching students with disabilities and willingness to integrate.

Future studies might also investigate the strategies used by teachers in the system who have successfully integrated children with disabilities into their classrooms in an effort to identify strategies that are both useful and easily mastered by regular teachers. Such studies might be conducted at both the primary and the secondary levels.

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