TEACHER TRAINING FOR SPECIAL EDUCATION
IN SINGAPORE

Paper presented at the South Pacific International Conference of Special Education
University of Auckland, New Zealand
January 16-20, 1990

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The context within which special and general education is provided in Singapore

In this paper, my objective is to discuss how both macro and micro level influences have operated in Singapore, to achieve over a remarkably short period of time a much improved national provision for special educational needs and training for special needs teachers in both special schools and regular schools.

In the 25 years since Singapore gained independence, this newly industrialising nation without natural resources, has placed a priority on training and developing a well educated, skilled work force. In order to avoid human wastage there has been an emphasis on establishing a quality education system, available to all who are willing to learn and in which recognition has largely been related to academic achievement.

As elsewhere in the world, in Singapore, pupils with special needs are found within all levels of the education system. Schooling generally is based on a quite elaborate system of ability grouping. Those with moderate to profound disabilities are mainly catered for in special schools while pupils with milder learning, behavioural, emotional, physical and sensory difficulties or disorders are within the mainstream system, often in the monolingual, extended or secondary normal streams.

The range of Singapore's educational provisions can be seen in this diagram (OIT 1) which indicates the provisions at each age level and the usual pattern of movement between levels.

Although in theory there is provision for lateral movement, in reality the system is fairly lockstep in that promotion within the competitive meritocratic system is dependent on examination results and in practice movement is more likely to be down a level rather than upwards as it is very difficult to earn the high grades necessary for entry to the top levels of the system when the school programme the pupils have been provided with has been adjusted to the needs of the majority of the class. Movement however can and does sometimes occur and Singapore parents commonly employ private tutors at fairly high cost in an effort to ensure their child maintains his/her place or hopefully improves it at the key educational channelling exams which are held at Primary 3 (9/10 years), Primary 6 (12/13 years), Secondary 4 and 5 (16/17) and then at the end of Junior College (18/19 years) before entry to University.

Special Education, until the last few years was somewhat the Cinderella of educational provisions. As well as superfluous funds, just not being available for what was regarded as non-essential education spending it was not seen that the disabled person had a significant productive role. Traditionally, in this Asian society, responsibility for caring for the sick, disabled and elderly is taken by the family not by private or public welfare organisations. Families have sheltered and cared for their dependent members as a natural, unquestioned obligation usually carried out with great love and devotion.

During the 1980s, with greater national prosperity and an increasingly well educated population which was influenced by ideas from the West, greater awareness of individual differences and special needs developed. This was reflected in official policy.
In 1983 Dr Tony Tan, Singapore's Minister for Education, stated that a key objective of the country's educational policy should be "to devise and establish a flexible education system which would as far as possible take into account the abilities and limitations of each child, and bring out the best in that child". Since then there have been significant improvements in programme provisions, funding and teacher education for both general education and pupils with special needs. In subsequent years, comprehensive provisions for children with special needs from pre-primary to tertiary levels, in both special and mainstream schools have evolved. For children with special learning needs in ordinary schools special programmes and curriculum materials have been developed. Essentially, individual academic needs have been catered for through a system of streaming which allows for lateral movement from Primary 3 level onwards. Provisions include the Monolingual Programme for slower learning pupils who cannot cope with learning two languages at primary level and the Gifted Education Programme for the highest achieving 5% of the school population. Recent concern about underachieving pupils at the three early primary levels and the prospect that they might be mis-streamed into the Monolingual Programme and their potential not realized has led to the piloting of a programme for helping under-achievers. Over the last few years sensitivity to the need to provide for the differing and special social and emotional needs of children has also increased. This has prompted schools at primary, secondary and tertiary levels to implement pastoral care programmes which cater for personal and social needs within the ordinary school context.

At the same time there grew an awareness that disabled children needed more than the sheltered family environment and were capable of learning and developing greater independence than many people had previously considered. Led by family members, enlightened educators, altruistic, caring members of the public and supportive professionals, advocacy and welfare groups were established. These developed over 20 years into voluntary organisations, each of which is today concerned with a particular disability area and provides a range of services including schools for disabled people. Those associations with a great interest in education are: MINDS, (the Movement for the Intellectually Disabled of Singapore), AESN (Association for Educationally Subnormal Children), Singapore Association for the Deaf, Singapore Association of the Visually Handicapped, Spastic Children's Association of Singapore and the Asian Women's Welfare Association. Through their efforts and those of the Singapore Council of Social Services (a division of the Ministry of Community Development) there are now 11 Special Schools in Singapore catering for pupils with a range of moderate to severe learning, sensory and physical disabilities. Up till recently these schools were outside the provisions coordinated by Ministry Of Education and were financed through school fees, grants from the Community Chest and the fund raising efforts of the voluntary associations.

In February 1988, however, the First Deputy Prime Minister of Singapore, Mr Goh Chok Tong appointed an Advisory Council on the Disabled to look into the problems of disabled persons and try to work out a set of programmes to help them integrate into Singapore society. In November 1988, they submitted their report entitled Opportunities for the Disabled. This report, which was well received by government, has become a blue print for
developments in special education provision. Significantly, for the first time in an official document it was stated that "Children with disabilities have the same right of access to education as other children". Further recommendations were that special education should not be perceived as a welfare system but come under the purview of the Ministry of Education, that land be set aside for special schools, that financing of schools should be supplemented by a substantial government contribution, that a school for training therapists be set up and a school psychological service established.

As a direct result of the Council's recommendations almost immediate concrete steps were taken to improve conditions for disabled children who attended the special schools.

(1) Ministry of Education took over administration of Special Schools from the Board of Special Education. This was a shift from welfare to education supervision of special education.

(2) A capitation grant of $3,000 per pupil per annum was announced by government. This is double the disbursement for a primary school child in a regular school.

(3) A Task Force appointed to review staffing in special schools recommended higher levels of staffing for psychologists, teachers and therapy staff. Such staff are to be recruited from overseas if necessary and local people will be sent overseas for training.

(4) To cater for the increased staffing demands of the special schools the Institute of Education (IE) which is the only teacher training institute has increased its training provisions. In the five years 1984 to 1988 the total intake of teachers to the Certificate in Special Education Programme was a little over 100. In the two years 1989, 1990 the intake is around 85. Additionally, a new inservice programme to provide special education training for about 60 MOE teachers who have generalist training only, but have been seconded to work in special schools will be implemented in early 1990.

Special School Teacher Training in Singapore

Prior to 1984 there were no special teacher training courses at the Institute of Education or special education courses at university level of direct relevance to disabled pupils in the special schools or to cater for special needs in the regular school system. Teachers in special schools mainly comprised untrained young women recruited through public advertisement often straight from school and provided with brief on the job training. There were also some generalist MOE teachers seconded to the schools and a small number of trained special educators who had received their education at overseas institutions, usually at their own expense.
Teacher and special educator requirements for helping and teaching pupils with special needs are similar to those else where in that the pyramid model with four levels of personnel need can be identified (OHF 2).

Currently training for levels 1 and 2 is provided in Singapore, but for levels 3 & 4 much of the professional and academic education takes place overseas as there are not yet specialist and university level courses available. These however are planned for the future.

The courses currently being provided by IE to teachers in Singapore whether special or generalist at the pre-service or inservice level can be seen in this diagram, OHF 3 which is further elaborated by OHF 4. How these training provisions and courses projected for the future relate to the teacher and special educator requirements at the 4 levels of the pyramid can be seen on the overlay for OHF 2.

To illustrate the type of training provided at the preservice and the inservice level and to demonstrate the extent to which the programmes satisfy the needs of the teachers for training, one programme currently provided by the Institute of Education will be discussed together with some of the course evaluation data provided by the participants and a description of how micro level factors and feedback influence programme development.

The programme, the CISE (Certificate in Special Education) is for untrained staff employed by the voluntary associations as probationary teachers or teacher's aides. After 6-12 months of employment they are sent to IE for professional training over 3 years or 1540 hours.

The Certificate in Special Education

This is a generic (non-categorical) course of training designed for teachers of children with varying levels and types of special educational need. It is essentially a pre-service programme of three years which is at present, for the student teachers, conducted concurrently with their teaching responsibilities in the special school. That is, the students spend half of their day teaching and the other half attending courses, preparing assignments and studying at the Institute of Education. A full time two year programme is also available should voluntary associations request this. However, up till now the special schools have not had sufficient relief staff available to release their teachers on a full time basis.

The IE prospectus states that the aims of the programme are:

* To provide a framework of knowledge, skills and attitudes that are fundamental to the education of children with special needs.

* To examine and analyse the educational, psychological, social and physical needs of disabled children.
To examine and explore appropriate methods of teaching that are relevant to the needs of these children.

To provide the skills necessary for the identification of specific disabilities and the diagnosis and assessment of individual weaknesses, followed by the planning of appropriate intervention strategies.

For admission to the Certificate in Special Education Programme, candidates must be serving teachers sponsored by the organisations running the special education schools. They must possess passes in the GCE 'O' Level Examination in at least 3 subjects, one of which must be English Language. In the last two intakes a majority of those admitted to the programme in fact have 'A' level qualifications or first university degrees.

There are four areas of study each made up of several different components or courses. These can be seen in OHT 5. The programme begins by introducing the trainees to the terminology used in special education and to the main areas of special educational need as well as to basic practices, principles and philosophy of education. It then moves to in-depth studies of the specific diagnostic and pedagogical strategies appropriate for the various types of learning difficulty that are encountered in teaching of children with special needs, dealing with curriculum content, teaching techniques and other intervention strategies. Throughout the period of training, the learning activities are intended to relate the practical skills of instruction to the underlying psychological theories and principles that govern the growth and development of exceptional children, depending on their particular learning needs. Current moral social and ethical issues relating to special education and curriculum issues are also addressed. The programme is intended to be highly practice-oriented so as to ensure a direct linkage with the real issues and problems encountered by the teachers in their special classes. As well as skills for teaching it is hoped to develop the communication, consultancy and counselling skills necessary to help manage in an effective way the specific needs of the pupils and their families and the teachers' own work related encounters with other professionals.

In reality, this means the teachers attend a series of courses which usually comprise lectures, practical workshops, discussion sessions, field trips, reading or research tasks, and preparation of an assignment which may be a written or oral presentation, an examination, a case study report, a package of teaching materials or a teaching programme for their pupils. Additionally, each year of the programme there is a 10 week teaching practice period during which each student teacher is appointed a supervisor who visits and observes the teacher at least 5 times, following which the lesson is discussed and a written report which evaluates the lesson, comments on competencies noted or lacking and provides an indication with grades of how well the trainee teacher performed.
In line with the motto of this Conference: "Striving for Excellence" and the IE vision: "Towards Instructional Excellence" it is the mission of the Department of Education for Children with Special Needs at IE to provide a dynamic and practical yet rigorous programme which not only prepares the teachers well for their present classroom roles but also helps to develop in them an interest in furthering their studies and advancing their careers in special education. For this reason steps are taken regularly to evaluate courses, update them and if necessary revise them substantially.

Two examples of this process will be used to illustrate first how student feedback is solicited, interpreted and used in order to assess the effectiveness of the programme and second how the programme revision process is effected at the micro level.

(a) Student feedback

In 1989 a programme evaluation was conducted with two student cohorts. The first group had completed the programme and were about to convocate and the second group had completed one year of the three year programme. The results were analysed separately and then compared.

Those courses and programme components which more than 75% of both groups rated as highly useful and relevant to teacher needs were very practical in orientation: Techniques of Teaching, Intervention Strategies and the curriculum areas of Language, Self Help and Social Skills, Physical Education and Art and Craft. The lowest course rating overall (CISE '86 = 54% and CISE '89 = 30% positive) went to Principles of Educational Practice (PEP(E)) a theory based course that focuses on normal child development and which the CISE students attend with the Certificate in Education (Primary School) teacher trainees. From their comments the CISE students find this programme only indirectly related to their teaching situation and so find it hard to make linkages between theory and practice. (OHT 6). Course activities and learning experiences rated highly by more than 80% of both cohorts were practical workshop activities carried out in class, carrying out case studies, developing programmes for their pupils, sharing thoughts informally with colleagues, and trying to apply theories learned in lectures to their teaching situation. (OHT 7). The two activities which neither cohort rated as worthwhile (less than 20% of both cohorts) were involvement with the Certificate in Education students through PEP(E) and participation in sporting, cultural and other student activities at IE. It seems from their comments that these part time student teachers do not feel a real part of the student body and do not have time for extra-curricular activities. Are special education teachers in Singapore not yet mainstreamed?
Further student comments did indicate that they feel somewhat on the outside of IE life and regarded as of lower status than other students and teachers. This is an issue which needs to be addressed. Perhaps making the CISE programme a full time one would help with this problem. However, overall, both the graduates and the current trainees have a positive attitude towards the programme. They acknowledge to have gained or to anticipate gaining a number of new skills, an enlarged body of knowledge and to have developed greater awareness of and sensitivity to issues and concerns related to special education.

For both groups practical teaching skills like lesson and programme planning, setting objectives, writing IEPs adapting teaching to changing pupil needs, making or adapting curriculum materials, behaviour management and motivational techniques were seen as useful. As well, professional skills such as evaluating the effectiveness of their own teaching, or the progress of pupils and writing reports were rated by 70% or more as being skills they had gained or hoped to gain from the programme. In terms of their attitude towards furthering their studies and making special education a long term career 69% of the graduates and 75% of the trainees reported that the programme had positively influenced their thinking. Overall, it was found that the current trainees (CISE '89) were more positive in their rating of the programme than the graduates. A possible explanation for this is that overall, on entry they held higher educational qualifications and so were perhaps better equipped academically to cope with a programme which has fairly high academic demands.

If this is so, it is possible that raising the entry to "A" levels (the requirement for entry to the Certificate in Education Programme) might not only ensure a good level of academic self confidence and self concept and so motivation and attitude to the programme but also raise the general status of the students within IE and of graduates of the programme who are teaching in special schools.

Although there is no evidence for this, one could also speculate that the students who are beginning their programme are enthusiastic in anticipation of what they hope will come, while the graduates in retrospection are a little more realistic, but hopefully not disillusioned. (Their overall positive ratings preclude general disillusionment).

What this means for the programme planners is that vigilance must be maintained to ensure that the programme remains relevant to the needs, interests and abilities of the consumers. Attention must be paid to courses which are poorly rated and activities which are not seen as worthwhile. One aspect of the programme which a previous survey (CISE 86) indicated was poorly rated by students is Teaching Practice. At the same time, IE lecturing and supervisory staff were dissatisfied with the supervision system used for teaching practice in special schools. The outcome of this was a period of development and trialling of a new system. This is outlined below.
(b) **Programme Revision**

Until 1988, when staff from the Institute of Education visited students to observe them teaching, a fairly informal system of reporting and assessment was used. This involved the supervisor in writing a general description and evaluation of what was observed, discussing the lessons strengths and weaknesses with the student teacher and highlighting aspects which needed attention and then at the end of the teaching practice period assigning an overall grade based on how they perceived the trainee. Formative grades were not assigned to each lesson. Moderation of grades took place through discussion among lecturers and visits by the Head of Department to the classrooms of distinction and failing students. Grades were not revealed to students and there was no way of ensuring similar standards among lecturers.

Following the recommendations of the Head of School, Special Needs staff decided to review the system of supervision. They hoped to develop a system:

(a) congruent with that used to supervise the Certificate in Education students,

(b) which was more systematic than the previous method and would promote consistency among supervisors,

(c) which would reduce stressfulness of teaching practice by clarifying requirements and establishing a communicative developmental model,

(d) which focussed on competencies and characteristics specific and crucial to special education,

(e) which could be completed in one lesson so that immediate, relevant, constructive feedback could be provided.

A survey of the students indicated they wanted more information on teaching practice including a booklet of guidelines, that they appreciated the oral and written feedback given, but feared there were inconsistencies among supervisors in supervision style and expectations. They also indicated that they found supervision, especially unannounced visits, very stressful and found the requirements of maintaining a full teaching file and lesson plans onerous.

Modelling their proposals on the Assessment of Performance in Teaching (APT) format used in the general education programme, SN staff developed an adapted form, the APTSE, (Assessment of Performance in Teaching-Special Education) which identified those roles, competencies and characteristics considered important for special educators and introduced a 5 point grading scale for each of the Teacher roles observed (Planning, Presenting, Communicating, Managing and Evaluating) See OHT.
At the same time a booklet Guidelines on Teaching Practice in Special Education was written. This provided detailed information for students and supervisors regarding what was expected of students and supervisors during the practicum and including guidance on the format for organising and presenting the teaching file eg. specific forms to use for lesson and programme planning or recording of assessment data.

The system was introduced to student teachers, special school principals and the supervisors in July 1988 and trialled in the 10 week teaching block of August to October that year. Subsequently both those people who had used the APTSE to supervise students and the guinea pig teachers were surveyed on their perceptions of the experience.

The IE supervisors and the principals (users) responded positively. A majority found the APTSE straight forward to use although some said there was not enough space for writing and that it took more than 30 minutes to complete. They liked this structured system of supervision, felt the teachers overall regarded positively the written and oral feedback given to them but found some students were pre-occupied with the grades given them rather than seeing them as developmental and part of the formative process. (OHT 10).

Although about 4 of the 32 students surveyed (12.5%) reacted negatively to teaching practice using the APTSE, saying it undermined their confidence and that they felt, they might be penalised because of inconsistencies between supervisors standards, the remainder were quite positive and made constructive comments. Although a majority of them reported they found the workload imposed on them by the teaching file a burden more than two thirds of the group said they found the APTSE straight forward to interpret, liked the way it was completed within a lesson, liked the immediate written and oral feedback, found the Guidelines useful and would like to see a modified system used with future CISE intakes. They did however express reservations about the grading system and indicated they would like a less structured marking system. (OHT 11).

Following this feedback the APTSE has been revised to accommodate some of the suggestions. (OHT 12). For example, instead of grades a 3 point Very Good, Good and Attention Needed system of assessment is used but at the end of the lesson and post-lesson discussion, at the discretion of the supervisor a tentative grade for the whole lesson is awarded. Students are encouraged to be self evaluative and to suggest the grade they think they deserve, thus the grade awarded is a negotiated one.

How then has this new system stood up in 1989? In the programme evaluations discussed earlier some questions were asked about teaching practice. Not surprisingly the CIS6 '86 graduates who had experienced the old system of supervision and the trialling period did not respond as positively as the CISE '89 group. (OHT 13).

Overall for CISE '86 only 46% rated Teaching Practice as useful and relevant. They disliked having to write detailed lesson plans (85% negative) getting grades for their lessons (69% negative) and unannounced visits (77% negative). However they liked discussions with the supervisor (85%) the written APTSE report (69%), maintaining the teaching file (69%), setting objectives (77%) and planned visits (77%).
By comparison 92% of the new intake CISE '89 found teaching practice useful and relevant. They rated most aspects of teaching practice very highly (over 85%) that is, for the discussions, the written report, keeping a teaching file, setting objectives and planned visits. Like CISE '86 however their areas of reservation were writing detailed lesson plans (52% negative), getting grades for lessons (34% negative) and unannounced visits (56% negative).

Will these findings result in further revisions to the system of supervision? Or are the areas which students don't like an essential part of the process? May be it is an attitude change on the part of the teachers that needs to be achieved. Perhaps they need to be convinced that part of being a professional and having a professional approach to their job involves being prepared at all times with full lesson plans for any visitor to the classroom be that person a supervisor, principal, parent or other professional.

Furthermore they need to accept that entry to any profession requiring qualifications depends on a certain level of achievement in both academic and practical work and that this must be assessed and graded to ensure that standards of performance are acceptable. May be in future we will have to address this issue of professionalism and the acceptance that a special educator must be accountable for his preparedness and performance at all times.

The final issue to be considered is:

What future developments in training of teachers and professionals for Special Education are likely or proposed for the near future in Singapore?

The macro and micro level influences previously discussed are likely to continue so that changes in provisions will result from both top down and bottom up pressures.

Proposals arising from the Report of the Advisory Council for the Disabled and the Task Force which reviewed staffing in special schools are likely to stimulate some of the following developments over the next few years.

- Establishment of a School Psychological Service
- Establishment of a School of Therapy to train speech, occupational and physio-therapists
- Recruitment of trained professional staff from abroad
- Sponsorship of teachers and students to study overseas in special areas of need eg. as therapists or specialists in particular disability areas
- Provision of in-service special education teacher training for the generalist Ministry of Education teachers who have been seconded to and teach in Special Schools (planned for 1990) (OHT 14)
Other developments which have been discussed and which are promoted from the grassroots level by either staff of the Institute of Education or the students and teachers in special schools include the introduction of:

- A Special Education option to the Master of Education degree for graduates of CISE and other teachers who hold a first degree
- A Specialist Diploma in Special Education for graduates of the CISE programme who do not hold first degrees
- An accelerated CISE programme for first degree holders who may in the future go on to study for a Masters degree in Special Education
- A special education option in the Certificate in Education programme
- A Course on children with learning difficulties in the preschool for trained pre-school teachers (OHF 15)

Such provisions would go a long way towards providing for the training of all special education personnel within Singapore rather than depending on overseas training.

As well, of course, there are those programme developments and changes which are necessary to keep existing programmes dynamic, relevant and appropriate for the cultural setting and the times. The important thing is that the momentum of the late 1980s is not lost and that the movement from the traditional family oriented approach to providing for special needs through a community and professional based provision is always well considered, well researched and in the best interests of all concerned, never forgetting the interests of the child with special needs.

REFERENCES:


LIST OF TRANSPARENCIES

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(2) Pyramid Model Showing Special Education Personnel in Singapore.

(2a) (Overlay) Training Required for Special Education Personnel in Singapore.

(3) Teacher Training for Special Needs Provided by the Institute of Education.

(4) I.E. Courses for Teachers of Pupils with Special Needs.

(5) Certificate in Special Education Programme.

(6) Ratings of CISE Courses and Programme Components.

(7) Evaluation of Programme Activities and Experiences.

(8) Skills Gained During CISE Programme.

(9) The Assessment of Performance in Teaching: Special Education (Draft).

(10) Supervisors' Rating of APTSE and Guidelines.

(11) Student Rating of APTSE and Guidelines.

(12) The Assessment of Performance in Teaching Special Education (Revised).

(13) Evaluation of Teaching Practice.

(14) Changes to Special Education Provision Proposed from the Macro-level.

(15) Changes to Teacher Training Arising from Micro-level Influences.