Continuity and Discontinuity Between Training and School Experience: Follow-up Studies of Former Students of the Institute of Education

Introduction

The present report is based on three pilot projects that aimed to explore and describe teachers' perceptions of their training and the transition experience of teachers in the shift from being a student on a teacher training programme to being a full-fledged teacher in the primary or secondary school. The three studies were prompted by the concern for a possible lack of fit, even under the best circumstances, between pre-service training and the work of a full-time teacher in a typical school. In the main, then, this report focuses on the continuity between campus-based training and teaching practice and full-time teaching experience.

Previous Research

The early phases of settling into a teaching position (for young teachers) have been studied by researchers overseas. These studies fall roughly into 2 categories: (1) personal accounts of success and failure of beginning teachers (e.g. Ryan, 1970 and 1980) and (2) empirical studies of selected factors (e.g. Hoy, 1968; Fuller 1969; McArthur, 1979; Shaw, 1977; Hewitson, 1980). As pragmatic follow-up studies, they were useful in keeping the training colleges and educational administrators informed about the difficulties and stresses young teachers faced as they attempted to make the shift from student to teacher. As for the methodology of the investigations, some adopted the case study approach, others were cross-sectional studies, and a few more longitudinal in design.

Some studies used the conceptual framework of teacher socialisation (e.g. Lacey, 1977) or of pupil control ideology (e.g. McArthur, 1979; Hoy, 1968). As Hoy (1968) explained it, "organisational socialization is concerned with the processes by which requisite role orientation of offices, statuses, and positions is acquired by participants in the organisation" (p. 314). To Lacey (1977), teacher socialisation includes "the process of developing a teacher perspective in which situations are both seen and interpreted in a new way" (p. 14). (These developing perspectives may be mediated by extensive teaching experience.) Those studies which employed the Pupil Control Ideology (PCI) instrument, for instance, found that one effect of school experience was that teachers became more "custodial" in their attitudes. Teachers who held a "custodial" orientation saw schools as "autocratic organisations with a rather rigid pupil-teacher status hierarchy" (Hoy, 1968, p. 313). It seems that students became more "progressive" during the course of their training but returned to a more conservative attitude once they were on regular teaching assignments (McIntyre and Morrison, 1967). However, the view that a progressive-

1 This is a brief note on the changes in the Institute’s training programmes in the last few years. As in most systems, the prospective teacher started his preparation for teaching as a student in a training programme. However, in the concurrent, two-shift system of training that we had before full-time training was introduced (in July 1980), the young trainee found himself in a rather ambiguous situation because he was both a student (as far as the Institute was concerned) and a teacher (from the point of view of the school and the pupils). He was a full-time teacher in one session and a student in the other session. With full-time campus-based training, block teaching practice has been introduced.

2 The Pupil Control Ideology (PCI) Form has been developed to measure the pupil control ideology of teachers along a custodial-humanistic continuum.
traditional shift in attitudes takes place following teaching experience has been criticised as being a little simplistic. Lacey (1977), for instance, thinks that such shifts in attitudes are likely to be "complex and incomplete".

Schwanke (1980) in a brief review of 10 studies reported that teachers often complained they had inadequate preparation for handling classroom management and discipline (e.g. Seifert, 1979; Hughes, 1977) and for evaluating student progress and providing for individual differences among pupils (e.g. Nicklas, 1975). Among the findings, teaching practice was often considered the most valued component of training programmes.

With regard to these types of problems faced by beginning teachers in the classroom, Otto et al (1979) found in a study carried out in Australia that 4 out of the 8 most significant problems experienced by secondary school teachers concerned class control. Primary teachers identified as major such specific problems as "handling the constantly disrupting pupils" (control) and "not knowing how to deal with reading problems" (method). Confrontation with such problems as discipline, control and achievement is part of what Lieberman and Miller (1979) have called the "dailiness" of teaching. However, in Ryan's study (1978) of 18 first-year teachers, the view highlighted was that certain aspects of "teaching reality" simply could not be duplicated in teacher education. Speaking in rather general terms, Ryan in an earlier report (1970) remarked that "teacher education tends to deal with what ought to be going on in the schools rather than what is actually happening" (p. 185). Ryan (1970) saw the disparity between what should be and what is happening as causing conflict for the young teacher.

Teacher education may be, as Fuller (1969) put it, "answering questions that students are not asking". In her well-known paper, Fuller (1969) proposed a conceptualisation of pre-service teachers' concerns based on three phases: a pre-teaching phase when concerns are not tied in with the specifics of teaching, an early teaching phase and a late teaching phase. Concerns of the early teaching phase have to do with "self" - "Where do I stand?" and "How adequate am I?" Fuller also noted that a persistent concern of most beginning teachers had to do with class control. In the later phase, concerns about pupils figure prominently. In a subsequent paper, Fuller and Bown (1975) identified three similar stages or clusters of concerns. They described the first stage as one of "survival" experienced by pre-service teachers, in which the concerns would be about class control, about being observed and evaluated. The second stage was defined as one of mastery, when teachers would want to do well in their jobs; these concerns would be about having to work with large classes, having to cope with non-instructional tasks, or about the shortage of instructional materials. In the third stage, according to Fuller and Bown, "the teacher may either settle into stable routines and become resistant to change or else may become consequences-oriented". What the phrase "consequences-oriented" implies is that teachers at that stage will be concerned about their impact on pupils. This "self-task-impact concerns" theory has been tested in different ways, but for the purpose of this report, Fuller's conceptualisation is mentioned in the hope that it can serve as a backdrop to the expressed concerns of the students surveyed.

Few studies of local teachers have been carried out. The Institute of Education (1982) study which seems to be the most relevant to the purpose of this report was conducted in 1981, and it surveyed the views of students enrolled in the full-time (1980/81) Diploma programme on "the repertoire of knowledge, skills and attitudes that constitutes the objectives of teacher education".

The 229 pre-service students surveyed accorded "high priority" to the knowledge and skills needed directly for effective classroom teaching (collectively the core objectives): for example, knowledge of the syllabuses, assessment procedures and educational policy and goals; skills in subject teaching, motivating pupils, classroom management and communication. However, skills in setting and marking exercises and in the choice of resource materials were of "medium priority" (collectively named in the report as supportive objectives). Objectives accorded "low priority" (or the peripheral objectives) included those set out to develop skills in using and making teaching aids, classwork supervision and routine administrative duties. It must be remembered that these students at the time of the survey were still under training and being full-time students they had completed only 10 weeks of classroom practice.

This study of pre-service students followed upon a similar one which surveyed the views of (a) principals of secondary schools and junior colleges and (b) the academic staff of the Institute, on teacher education objectives. While, in the main, the samples of respondents in both studies were agreed on the priority to be accorded to a set of teacher education objectives (the core, the supportive and the peripheral), it was the lecturing and school administrative staff who had a longer-term view of teacher education objectives. It would appear that trainee teachers had already developed a pragmatic approach to their expectations from courses and block teaching practice. They would be at what Fuller
and Bown (1975) have called the "survival" stage. Hence, the 1982 report concluded as follows: "An effective teacher education programme in the eyes of the [pre-service] students is therefore one that prepares them to cope with the many and varied day-to-day problems they will encounter within the four walls of the classroom".

What has been the experience when these pre-service students moved into full-time teaching? A preliminary answer to this question is given in the rest of this report.

**Nature of the Present Studies**

The studies reported on here rely on two sources of data — responses to questionnaires and a post-questionnaire interview with selected respondents. One questionnaire was administered to a selection of teachers who graduated from the Certificate in Education programme between 1980 and 1982. By the end of 1982, when the questionnaire was administered, they would have had 6 to 36 months of full-time teaching experience depending on the date of graduation. Another questionnaire was sent (by the Research and Evaluation Department) to former Diploma students, and in a sub-study involving the same group of Diploma students who took courses in the teaching of English, a separate questionnaire was administered to find out the subjects and grade levels they were teaching.

The first caveat about the data should be stated here. As we all know, self-reported information is necessarily subjective, and certain views can only be verified through detailed field work. The team members did interview a sample of the respondents on a pilot basis. Because of the nature of the data we had, we tried to quantify only the information which we thought was quantifiable.

This is therefore only a preliminary analysis of the data, focusing essentially on (1) the perceptions that former Certificate and Diploma students had of their training programmes with the benefit of full-time teaching experience, (2) any noticeable shift in teaching perspectives, and (3) the continuity between training and deployment.

**The Samples**

Data used in the analysis were collected from three samples. The Certificate sample was made up of 582 teachers (or 32.6% of those) who graduated from the Certificate in Education programme between 1980 and 1982, and was derived from a random selection of schools. For the purpose of the survey, the sample was an adequate representation of the various batches of students (Table 1). It should be noted that the July 1980 batch joined the reconstituted full-time programme. The previous batches were largely on the concurrent two-shift system, i.e. they attended classes at the Institute of Education in one session and taught in school in the other session.

<table>
<thead>
<tr>
<th>Batch (Intake Date)</th>
<th>Total No. Graduated</th>
<th>Number in Sample</th>
<th>% in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1977</td>
<td>92</td>
<td>18</td>
<td>19.6%</td>
</tr>
<tr>
<td>Jan 1978</td>
<td>93</td>
<td>18</td>
<td>19.4%</td>
</tr>
<tr>
<td>July 1978</td>
<td>374</td>
<td>90</td>
<td>24.1%</td>
</tr>
<tr>
<td>Jan 1979</td>
<td>355</td>
<td>111</td>
<td>31.3%</td>
</tr>
<tr>
<td>July 1979</td>
<td>405</td>
<td>143</td>
<td>35.3%</td>
</tr>
<tr>
<td>Jan 1980</td>
<td>208</td>
<td>72</td>
<td>34.6%</td>
</tr>
<tr>
<td>July 1980</td>
<td>260</td>
<td>130</td>
<td>50.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1787</td>
<td>582</td>
<td>32.6%</td>
</tr>
</tbody>
</table>

Most of the respondents (81%) are deployed in primary schools, while the rest are teaching in lower secondary classes. Of those teaching in primary schools, about 6.7% taught "monolingual" course classes during their first year of service. About 7% of those in secondary schools were teaching "normal" course classes.

For the purpose of this report, the Diploma sample consisted of 175 teachers who left the Institute between 1980 and 1982; and their questionnaires were completed for an earlier, larger study conducted by the Research and Evaluation Department. The third sample was made up of 89 Diploma students who graduated in 1980 and 1981 and who were trained to teach English Language as one of their teaching subjects.

5 The Certificate Group

5.1 Perceptions of their Training

The adjectives respondents used to describe the training programme as a whole ranged from "satisfactory" (a term frequently used) to "well-balanced" and "comprehensive". One remark was: "IE's training has widened my knowledge of

1 In the new education system, with streaming at appropriate grade levels, "monolingual" course pupils will complete their primary education in 8 years (instead of 6) and "normal" course students in 5 (instead of 4) years.
the teaching profession. It helped to throw light on and to add interest to the teaching field." Concerning teaching methodology courses, another commented: "The training at IE made me aware that teaching need not be done from a textbook. I became aware of many interesting and innovative ways of teaching".

Respondents were then asked how well their training at IE prepared them for the grade levels they were teaching in school. Most of the students found the preparation at IE "adequate" for the classes they were teaching, but a relatively small percentage of the respondents thought that this was not so. For instance, about 7% of those on the part-time (concurrent) programme and 10% on the full-time programme reported that the training they received was not quite adequate. The main reason given for this view was that they were trained for the wrong levels, because some had been trained to teach pre-primary and lower primary classes were assigned by their respective schools to teach upper primary children.

Another source of dissatisfaction was the discrepancy between the subjects trained for and those the teachers had to teach. For instance, a few teachers had to cope with mathematics and science without having had prior training in these subjects. In the earlier training programmes, it was possible for students to choose all their methods courses from subjects other than science and mathematics.

Some teachers saw what they described as the rather "academic and theoretical" nature of certain courses as a source of inadequacy. They maintained that the theories and methods learnt were not applicable in practice, e.g. the content of some courses was directed at upgrading the trainees' knowledge and not at meeting the requirements of pupils at school. We would agree with Lortie (1975) when he said that sometimes when the term "theoretical" was used, very often respondents did not mean that the content was too abstract or general, nor did they mean that the courses contained too many concepts. Lortie (1975) thought that the term "theoretical" was used to indicate that the aims held out in the courses were "excessively exalted" and that they provided "impractical expectations and an utopian conception of classroom reality" (p. 69). This perception is reflected in the views described in the next two paragraphs.

For some students in the sample, the problem was one of adjustment to the real world of the classroom. Hence, some characterised the training as "idealistic". For example, they said that the pre-primary and lower primary programme concentrated on activity-based work and advocated informality in dealing with very young pupils and, as a result, the new teachers had to learn to adapt this style of teaching to the rather structured formality of the real classroom.

A further view was that the new teacher was not sufficiently prepared for the various roles he has to play in a school. In particular, students were not trained to deal with slow learners and problem children, especially those in the monolingual stream. Some would like more guidance on the setting and marking of class tests and on the use of CDIS materials, especially those of the PEP and NESPE projects1. (The earlier situation is being rectified with the introduction of CDIS English project materials to the present batch of students.) Some others were of the view that courses on the teaching of English Language did not cover adequately methods of teaching English in non-English medium classes.

Respondents were asked to be a little more specific in their comments on the training programme with regard to the main components, viz. Principles and Practice of Education, Special Methods Courses and Teaching Practice. Briefly, some 44% of the respondents would like to see some changes in the course on the Principles and Practice of Education. A number of them found the approach "theoretical and idealistic" and would like to see greater relevance to the actual classroom. In addition, they would prefer more provision in the course structure for discussions on the present school situation through interaction between lecturers and students. The number of mass lectures should be reduced, some suggested. Also, assignments would be preferable to examinations, and if examinations are to continue, each component or theme should be examined separately at the end of each semester. Changes in the way tests and examinations are sequenced in our training programmes are under consideration now.

As for the teaching methodology courses, about 30% of the respondents suggested changes in the content and methodology of the course on the Teaching of English. They felt that the teaching of English grammar was generally not given adequate attention, mentioning in particular the lack of a systematic coverage of grammatical items as prescribed in the syllabuses for specific grade levels. For this purpose, it has been suggested that the subject syllabuses and guidelines as determined by the Ministry of Education should be followed a little more closely in the planning of courses at IE. (This suggestion is being implemented.) The constraints of the local classroom should also be

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1 The three acronyms stand for the Curriculum Development Institute of Singapore (CDIS), Primary English Programme (PEP) and New English Series for Primary Education (NESPE).
assigned to a trainee. In general, students would schedule their visits in advance. Some students could attend different classes and in different subjects. The key issue that emerged in the suggestions was that of relevance. For instance, modern Mathematics was perceived by some students as being not relevant to what was to be taught in the primary school syllabus although it was suited to the topics in the secondary school Mathematics curriculum. They felt that the content of a methodology course should reflect the mathematical concepts taught in primary and lower secondary classes. Also, it was again suggested that more guidance be given to trainees on the setting of examination papers.

Although teachers were generally satisfied with the teaching practice supervision arrangements as we have them now, some (31%) felt that certain changes ought to be introduced. Most of the comments drew attention to the role of the supervisor and his attitude. Supervisors should be more supportive, they suggested, and their criticisms constructive and helpful. These students would prefer to see supervisors as advisers and helpers rather than as assessors. In addition, they felt that the basis for assessment was not always reliable, especially when it consisted of a few visits spread over a term. The trainee's competence was best assessed, they felt, if the supervisor could see his students in different classes and in different subjects.

Opinion was, however, divided on whether supervisors should let their students know of their visits in advance. Some students could accommodate surprise visits, while others would be more comfortable with relatively fixed arrangements. Several respondents suggested that more than one supervisor should be assigned to a trainee. In general, students would like to have, before they went out on teaching practice, a clearer definition of their teaching duties and school expectations than what was available at present in the Teaching Practice booklets.

It was clear that our Certificate programme did not prepare our students well for the school's routine administrative matters. Only 19% of the respondents thought that what was provided was adequate to meet immediate needs — this was the group which had a short course on school administration routines specially mounted for them on an experimental basis. At that time, two school principals were invited to give talks on the topic. During the interviews, the question concerning the provision of a short course on school administration was pursued. In fact, opinion was divided over this question. Some thought that a pre-service programme should entail training in all aspects of a teacher's role, including the marking of class registers and the collection of 'school fees and milk money. Others thought that the administrative/clerical duties were simple and they could be picked up while on the job; there was therefore no necessity for a course on routine administrative matters except for some general information about the kinds of administrative responsibility that a teacher is expected to have to take on.

Co-curricular activities were organised at the Institute on Saturday mornings to help prepare trainee for their extra-curricular responsibilities in school. It is a little surprising when 71% of the teachers reported that they were not well prepared for their extra-curricular role. The reason probably is that the activity they took charge of was not the same activity they were involved in at IE. Only in the last two years has there been any attempt to inform the schools what extra-curricular activity each student was trained in. This information will help to reduce the discrepancy between what they had as extra-curricular activities at IE and what they were told to take charge of in school. This discrepancy was inevitable as they had to take what was available.

5.2 Application of Training

When asked whether they had a chance to apply in the classroom what they had learnt at IE, the majority said that they had applied to some extent different aspects of their training. For example, the lectures on educational psychology helped them to understand children, their capabilities, limitations and feelings. In particular, they learnt how to motivate children to work in class, applying some of the principles learnt in one of the topics in Core Education. The skills learnt in the course on Educational Technology served a useful purpose in the classroom when teaching aids were required. A fairly common remark was: "I was taught to prepare my own teaching materials for various lessons. This [experience] helps me a lot for I use aids frequently."

The majority reported that they were able to put to good use different approaches to class-
room teaching as advocated by the methodology lecturers. For instance, a number found group teaching feasible and essential in the lower primary classroom and therefore put into practice what they had learnt about this approach. Of the various components mentioned in the teaching of English, the teaching of composition and comprehension was mentioned often as being applicable to the primary classroom. Generally the ideas on organising language activities through the use of games, songs and puzzles were found useful as they drew teachers away from over-dependence on the traditional chalk-and-talk method of teaching English. To some, the preparation for the teaching of physical education in school was adequately provided by the PE courses at IE. What teachers found most applicable were the various methods of organising games. In the teaching of Mathematics, for example, teachers mentioned concept teaching as being most practical in the classroom, while the experience in conducting experiments and practicals as provided in the science course was found to be most useful. To the pre-primary and lower primary teachers, ideas learnt from the art and music courses were certainly helpful and feasible as they attempted to make their teaching more creative.

5.3 Problems Encountered as Beginning Teachers

Teachers were given a number of problem statements to rank in order of seriousness in the light of their classroom experience. Naturally teachers would have different perceptions; there was, nonetheless, a certain degree of agreement as Table 2 shows.

Many teachers found pupils with behaviour problems difficult to handle in a class of some 40 children and many ranked this experience as the most serious problem for a young teacher. In the interviews, a few volunteered the view that such problems could be brought to their attention during their training through the study of specific cases in settings where teachers have to teach a full class of children and at the same time take care of the problem children. Problem children were described as those who lacked discipline, were unable to follow routine learning activities and were generally disruptive to planned work. This problem matches one finding in an Australian study (Otto et al., 1979), for instance, in which all three samples (secondary, primary and infant teachers) ranked the problem of “handling the constantly disrupting pupils” as the most serious and frequently occurring.

Ryan (1970) commenting on the reports of 12 beginning teachers notes that “nothing absorbs the energies of the first year teacher as does lack of discipline or, as we euphemistically put it, a breakdown of classroom management...But for some reason, the issue of discipline remains the great unmentionable of teacher training” (p. 177).

Many respondents felt that they were not quite prepared for work in large classes or more correctly for the dynamics of such a situation. Other than the problem of giving equal attention to 40 children in the same teaching period, there was also the problem of maintaining discipline among all 40 in the class. In addition young teachers were generally not quite prepared for the amount of paperwork (e.g. the filling of forms, writing reports on pupils) which came with the job. About 18% of the respondents thought this the most serious problem1.

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1 These problems may be compared with the teaching tasks that beginning teachers in Australia worried about towards the end of their first year of teaching, as reported in Tisher (1980).

<table>
<thead>
<tr>
<th>Teaching task</th>
<th>Those worrying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching groups with wide ability range</td>
<td>63%</td>
</tr>
<tr>
<td>Teaching slow learners</td>
<td>62</td>
</tr>
<tr>
<td>Evaluating own teaching</td>
<td>55</td>
</tr>
<tr>
<td>Motivating pupils</td>
<td>54</td>
</tr>
<tr>
<td>Discovering level at which to teach</td>
<td>47</td>
</tr>
<tr>
<td>Teaching specific skills (e.g. reading)</td>
<td>41</td>
</tr>
<tr>
<td>Controlling classes</td>
<td>39</td>
</tr>
<tr>
<td>Assessing students' work</td>
<td>37</td>
</tr>
</tbody>
</table>
5.4 Suggestions for Improvement

The following suggestions made by the respondents often reiterate the points made earlier about their training programmes. For instance, their main complaint against the Certificate programme was the inadequate preparation for the organisational aspects of a school. They wanted to be put through a proper induction programme for their first school posting, to be told about the facilities and equipment available in the receiving school, the particular principal’s expectations of his staff, and the service conditions. The impression given was that the satisfaction of working in a school setting would be doubly enhanced if new teachers were also equipped with interpersonal skills. Some complained that they were ill-prepared to handle “difficult colleagues and unreasonable principals” and what they called common room politics. Indeed, the development of interpersonal skills was ranked by student teachers in the IE Study (1982) as one of the core objectives in a teacher education programme. Very often, though, students adopt their own strategies to handle the complexities of the staffroom situation; for them it is part of what Lacey (1977) has regarded as a teacher socialisation process.

While trainees generally felt comfortable with classroom management, they thought that certain aspects of it in the local situation could be highlighted and specific advice given with regard to, for instance, the handling of behaviour problems and the use of punishment and the kinds of assistance to be given to those pupils with language and learning problems.

Those who took the Pre-Primary and Lower Primary Programme thought that the programme coverage lacked balance because there was too much emphasis on the pre-primary section. This would only be true in the case of the training provided to the July 1978 and 1979 batches of students. Since then, a balance has been maintained between pre-primary teaching and primary teaching. A few respondents thought that the primary methods courses were not quite suitable for Singapore children of the primary school age who had a language barrier to overcome before they could start learning and participating in activities.

Many respondents would regard some teaching ideas as “impractical” especially if advocates of these ideas ignored the classroom constraints that teachers work under. These respondents saw the large size of a class as a major obstacle to the implementation of theories advocated in lectures. In practice, teachers work under certain pressures and constraints generated by a rather traditional school structure. For instance, some students suggested that lecturers should accept the fact that a typical classroom holds some 40 pupils of varying abilities, learning styles and pace of learning.

While they recognised that such constraints could not be removed, the students suggested that as trainees they should be made aware of the limitations they were bound to encounter once they became full-fledged teachers and should therefore be taught how to adapt and modify ideas taken very often from those meant for a different cultural setting.

Some respondents suggested that the Certificate programme should aim for “all-round” training with equal coverage of all subjects in the primary school curriculum taught in English. A specific suggestion was that the first year of training should be general, followed by a year of chosen specialisation defined by grade levels. (The new Certificate programme makes provision for a certain degree of specialisation, in the second year of training, in lower secondary teaching, lower primary teaching and second language teaching.) In any case, it was recognised by some respondents that what they had undergone at the Institute was only initial training and that the “topping-up”, as it were, could be achieved at the in-service stage.

Suggestions with regard to specific aspects of the training programme are summarised here. In the art education component, for instance, a few teachers, especially those teaching the upper primary classes, would like more emphasis on crafts for children rather than art, which, they said, was confined to printing and painting. In the case of the science education component, the students suggested that teaching methodology should take into account the actual needs of the classroom. In reading, they asked for some provision in the course to train them to organise a school reading programme. Physical education should not be confined to skills practice but should include methods of teaching games and folk dancing. Irrespective of the specific subject teaching methodology, a request commonly made was for training in setting tests and marking examination scripts.

In the area of Teaching Practice, some comments were made on the occasional mismatch between the expertise of supervisors and the school subjects they were in fact supervising. As supervisors were assigned to Certificate students not on the basis of the subject specialisation of students (because primary school teachers teach most subjects on the school timetable), it was quite likely, for instance, that an English lecturer could find herself having to give advice to a trainee facing problems with the teaching of Mathematics in a particular class. In addition, respondents preferred more visits to be made by supervisors.
5.5 Perceptions of Teaching

On the issue of continuity/discontinuity between pre-service training and actual teaching experience, we were interested to see whether there was an observable change in their perceptions of teaching as they moved from campus-based training to full-time teaching in school. On the basis of the various remarks made on their training programme, we had already noticed a more realistic perception of the work of the teacher in the classroom and of the teacher's role. As noted in the brief review of literature, there is some research evidence that teachers undergo a change very early in their teaching career. Looking at the data derived from a different section of the questionnaire, we noticed in Table 3 some changes in opinion about certain aspects of teaching, between the time when they were under training (time 1) and the time of the survey (time 2).

Table 3:
Changes in Perceptions of Teaching (n = 582)

<table>
<thead>
<tr>
<th>Item</th>
<th>Agreement/Disagreement</th>
<th>During</th>
<th>Undecided</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A There is much room for innovative teaching even if teachers follow closely the syllabus and prescribed textbooks</td>
<td>68%</td>
<td>17%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>B A good teacher will always stick to the plan of his lesson whatever the circumstances</td>
<td>15%</td>
<td>13%</td>
<td>72%</td>
<td></td>
</tr>
<tr>
<td>C The use of sarcasm by the teacher in class harms the morale of the class</td>
<td>68%</td>
<td>16%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>D All pupils can learn if they are properly motivated</td>
<td>88%</td>
<td>8%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>E Contacts with the pupils constitute the most rewarding and satisfying part of a teacher's work</td>
<td>85%</td>
<td>10%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>F A teacher feels successful only when his pupils do well in exams</td>
<td>49%</td>
<td>14%</td>
<td>37%</td>
<td></td>
</tr>
</tbody>
</table>

1 Table 3 can only provide an idea of the changes in the pattern of opinions held at different points in time with regard to each issue. It was in a series of cross-tabulation tables that the changes in the patterns of views could be observed as shifts towards agreement or disagreement.
On the question of lesson flexibility (item B), for instance, there were more students disagreeing with the view that a good teacher should necessarily stick to the plan of his lesson whatever the circumstances than was the case at time 1 (i.e. during training). A corresponding change was noted in the "agree" category. With experience, students apparently saw flexibility in instructional organisation as a useful principle. Interestingly, some 8% of the students who were "undecided" with regard to this view at time 1 changed in the direction of disagreement. On a different issue (item A), a good percentage of the respondents after having taught for some time still maintained that there was much room for improvisation and innovative teaching even if teachers followed closely the syllabus and prescribed textbooks. This point seems to be a useful clarification because there has been some misconception that syllabuses and prescribed textbooks are necessarily obstacles to innovative teaching. Nonetheless, there was some increase in the percentage of students at time 2 disagreeing with the view that innovative teaching was practicable. Teachers' views on pupils' learning ability (item D) seem to have changed little over time — however, a slight increase was observed in the percentage of people disagreeing at time 2 that all pupils could learn if they were properly motivated. The shift towards disagreement was made by some 3% of the "undecided" group.

Most students agreed that at the point of training they perceived contacts with pupils as being the most rewarding and satisfying part of a teacher's work (item E), and experience in schools has since reinforced that view. Further analysis showed that those who were "undecided" at first have since shifted to agreement with the statement. This trend is consistent with the increased percentage of students registering "disagreement" at time 2 with the view that a teacher felt successful only when his pupils did well in exams (item F). While objective evidence of pupils' success in examinations must necessarily give teachers a sense of personal achievement, it would appear that not all teachers saw examination performance as the only criterion of successful teaching. For example, the outstanding primary teachers in Jackson's (1968) study regarded "spontaneous expressions of interest and enthusiasm" as highly valued evidence of good teaching.

What may be a little difficult to explain was the increase in the percentage of students disagreeing with the view (item C) that the use of sarcasm by the teacher in class harms the morale of the class. It could well be that these respondents felt that sarcasm would be lost on primary school-children and in that sense the morale of the class would remain unharmed.

Finally, it must be pointed out that we did realise that by focusing on expressed attitudes without taking into account the organisational context the respondents were in, we would get a rather limited view of the effect of experience on students' attitudes.

6 The Diploma Group

6.1 Perceptions of the Training Programme

How well prepared did the Diploma students think they were for the various roles/tasks in a secondary school? The table below gives an indication.

Like the Certificate students, the majority of Diploma students in the sample also indicated that they were poorly prepared for the school's routine administrative matters. The types of administrative duties in primary and secondary schools would be different but the amount of work involved would be roughly the same. On the whole, they had much confidence in their teaching ability. However, some 46% of the respondents thought that they were not well prepared for one important aspect of teaching, i.e. setting class tests and examinations. These skills are usually taught in the methods courses for different subjects, and it is apparent that some courses paid a little more attention to this aspect

<table>
<thead>
<tr>
<th>Role/Task</th>
<th>Well Prepared</th>
<th>Not Well Prepared</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the school's routine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>administrative matters</td>
<td>17%</td>
<td>83%</td>
<td>100%</td>
</tr>
<tr>
<td>For classroom teaching</td>
<td>84</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td>For setting tests and exam papers</td>
<td>54</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td>As a counsellor to the pupils</td>
<td>42</td>
<td>58</td>
<td>100</td>
</tr>
<tr>
<td>For taking charge of an ECA</td>
<td>28</td>
<td>72</td>
<td>100</td>
</tr>
</tbody>
</table>
of teaching than others. Counselling skills are not taught to all students, although all of them would have had some knowledge of the general principles of counselling given in a compulsory course. In the present programme, separate courses on mental health in the classroom and on the needs and problems of adolescents are offered as electives. The view that co-curricular activities did not really prepare them for extra-curricular responsibilities in school seems consistent for both the Certificate and Diploma groups of students.

6.2 Problems Encountered

What were the more serious problems that the Diploma teachers faced in their early years of teaching? The table below gives the rank order of the problems that the beginning teachers indicated they faced.

As in the case of Certificate students, the problem regarded by Diploma teachers as serious was finding effective ways of motivating pupils to learn. What was seen as a core objective ("motivating pupils") in the IE Study (1982) was considered a serious problem. This view is linked to the next two, both of which have to do with the task of teaching pupils with special problems. Another difficulty faced by the young graduate teacher was in coping with too much paperwork handed down by the school administration.

Since the type of support and encouragement beginning teachers received from experienced colleagues would help to shape their attitudes about teaching and about themselves as teachers, the next question asked was: Whom did they consult most often when they had problems? The people they turned to most often for advice were friends who were teachers. These friends would not necessarily be among those working in the same school. Former lecturers were rarely consulted, however. In fact, only 2 respondents indicated that they had approached their former course tutors regarding classroom management problems. This discontinuity, as it were, could be explained by the fact that no formal mechanism exists for students who have graduated to seek advice from their former lecturers regarding teaching problems. Within the school itself, they were more likely to see the senior subject teachers or teacher colleagues. This would be particularly true when they had to help pupils with learning difficulties or handle pupils with behaviour problems. As for the latter problem (i.e. handling pupils with behaviour problems), the principal, vice-principal or senior assistant was sometimes consulted. Reportedly the senior staff members (the principal, vice-principal, senior assistants and senior subject teachers) were a great source of help when it came to seeking advice about administrative problems.

6.3 Training and Deployment

This section takes into account another aspect of the continuity/discontinuity issue. Briefly, in another study of the same Diploma group, a small sample of students was surveyed to find out whether there was continuity between what they had taken as their methods courses and the subjects that they were teaching in school. In particular, those teaching English Language teaching methodology wanted to know how many of the students who took their courses (either as Special Methods 1 or Special Methods 2) were actually now teaching English. Altogether 89 of the 170 students who had taken English methods courses and who graduated between 1980 and 1981 returned usable questionnaires.

Table 5:
Frequently Mentioned Problems Faced by Beginning Teachers (n = 175)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Rank Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivating pupils to learn</td>
<td>1</td>
</tr>
<tr>
<td>Handling pupils with behaviour problems</td>
<td>2</td>
</tr>
<tr>
<td>Helping pupils with learning difficulties</td>
<td>3</td>
</tr>
<tr>
<td>Coping with paperwork required by the school administration</td>
<td>4</td>
</tr>
<tr>
<td>Maintaining classroom discipline</td>
<td>5.5</td>
</tr>
<tr>
<td>Organising and conducting ECAs</td>
<td>5.5</td>
</tr>
<tr>
<td>Making effective use of teaching aids</td>
<td>7</td>
</tr>
</tbody>
</table>

1 Based on a report by T. A. Kirkpatrick on the survey that he conducted in September 1982.
In general, the fit between training and deployment was quite good. About 88% of the sample taught the subject which they studied as their first teaching subject (or Special Methods 1). The match was closest (98%) for those who took English Language as their SM1 (see Table 6). This is obviously because of the general shortage of graduate teachers trained in English and the larger number of English teaching periods on the school time-table.

Mismatch occurs mainly in two subject areas, History and Geography. All of these students who did not teach their SM1 subject were teaching English Language (in the upper secondary classes), which was their second teaching subject in the training programme, and English Literature in the lower secondary classes. Conceivably a different posting would have changed the picture a little, i.e. allowing each of the 10 students to teach his SM1 option. Further analysis of the data showed that of these 10 students, 5 had studied English as a subject for at least one year at the university, which means that these 5 students had some content preparation in the teaching of English Literature. However, the fact remains that they were more prepared for their SM1 option but were not teaching it.

The match was not as good when their second teaching subject options (SM2) were examined separately as a group (see Table 7). Only 27 of the 38 respondents who were trained to teach English Language as an SM2 were teaching the subject. Of the 11 not teaching English, 7 had Management as their main subject, and it would appear from their teaching load for Management (22 periods per week) that they had little time left for other subjects. 50% of those who took Literature as SM2 did not teach Literature; a good number of them taught General Paper instead, as they were at either pre-university centres or junior colleges. It is in the lower secondary classes that literature is a compulsory subject; so it would not be surprising to find all of those who had history or geography as SM2 teaching Literature in addition to English Language especially if there was no shortage of History or Geography expertise in those schools.

As a result, in this small sample 13 of the respondents taught Literature although they were not trained to teach it. However, it does not necessarily mean that they were not academically prepared for the subject. Except for one student, all of them had studied English for at least one year at the university.

General Paper was a teaching subject for 18 of those in the sample posted to junior colleges and pre-university centres. On the average, they taught 10 periods of General Paper per week. Fifteen of the 19 students posted to junior colleges taught General Paper. Currently, there is no course to prepare students for the teaching of General Paper (it is now treated only as a topic in SM1 English), although it would appear that the task of teaching General Paper was often assigned to English Studies graduates. Of the 18 teaching General Paper, 11 took English as SM1 and Literature as SM2. We are exploring the feasibility of offering General Paper as a module.

### Table 6:
**Match Between Main Teaching Subject (SM1) and Deployment (n = 89)**

<table>
<thead>
<tr>
<th>English</th>
<th>History</th>
<th>Geography</th>
<th>Management</th>
<th>Maths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained to teach the subject</td>
<td>51</td>
<td>12</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Teaching the subject</td>
<td>50</td>
<td>6</td>
<td>12</td>
<td>7</td>
</tr>
</tbody>
</table>

### Table 7:
**Match Between SM2 Options and Deployment (n = 89)**

<table>
<thead>
<tr>
<th>English</th>
<th>Literature</th>
<th>History</th>
<th>Geography</th>
<th>Maths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained to teach the subject</td>
<td>38</td>
<td>32</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Number teaching the subject</td>
<td>27</td>
<td>16</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
in one of the special methods options to meet the needs of those being prepared for teaching in pre-university classes.

The relatively good match between SM1 options and the subjects the students were actually teaching can be attributed to the method of selecting students for training. As indicated in our advertisements each year calling for applications, one of the criteria was academic preparation in the subjects for which there is a shortage of teachers. The recruitment exercise is carefully monitored to meet the needs of the school system. Although deployment is beyond the control of the Institute, it is quite clear that for school placement purposes attention has been paid to the SM1 options taken by the students. Whether or not the students have had a chance to teach their second special methods option would depend very much on the staffing situation of the receiving school. Given the situation, however, there is a need to consider the provision of in-service courses for those not prepared in their initial training for the subject(s) they were in fact teaching in school.

7 Discussion

There was a great deal of consistency between the findings in this pilot effort and those reported in publications based on surveys carried out in UK, USA and Australia. For instance, student criticisms were often directed at the theoretical aspects of courses. The main convergent aspects seem to be the following:

(a) The change in status from semi-dependent student to independent leader and organiser of large groups of children was seen as a major adjustment problem for new teachers.

(b) A side effect of the adjustment problem was a temporary rejection of the ideals and approaches advocated during training. New teachers generally felt that their training was a little "theoretical" especially in classroom management and also that they had been given a far too idealised picture and were therefore not prepared for the real impact of day-to-day teaching with a full teaching load, clerical responsibilities and extra-curricular duties.

(c) Another source of what may be called disenchantment lay in the interpersonal relationship aspect of the staff room, for the new teacher was sensitive to, and uncertain of, ways of handling the attitudes of older and more experienced colleagues.

The problems ranked or mentioned by the relatively new teachers surveyed in Singapore can be considered to be in two main areas. The first is that of the real world classroom situation and both the Certificate and Diploma surveys agreed in general terms on the specific types of problems encountered. These problems were characterized by the frustrations in handling poorly disciplined and unmotivated pupils, slow learners, administrative tasks, staff room interaction, extra-curricular activities and the preparation and marking of tests or examinations, as well as the discontent arising from, in some cases, a heavy teaching load and/or the mismatch of subjects or levels trained for and actually taught.

The second problem area concerns the IE training itself. As mentioned in other surveys, there was a generally held view among new teachers that their training could have been more practical and less idealised to fit in with the school constraints of time, syllabus, class size and traditional attitudes to methodology. This is a more complex problem than would at first appear, for the answer lies not merely in restructuring the content of the courses. Rather, it is a case of deciding how much coverage is possible when preparing people for such a multifaceted human situation and also how much preservice students can be expected to see as relevant before actual teaching experience. Naturally, teacher preparation confined to a very narrow range of classroom duties cannot be totally satisfying or satisfactory.

This leads on to three main recommendations arising from suggestions put forward by the teachers who participated in the interviews.

(a) Perhaps the pre-service training programme should consist of a basic level of training followed by a period of full-time classroom teaching and completed by a specialised advanced course, before the trainee is considered to be qualified. However, an important distinction should be between tasks that can be relatively easily mastered and those requiring intensive training.

(b) Some students interviewed advocated a continuing contact with the Institute as a means of ensuring "survival" in the first year of teaching, through, for instance, an advisory scheme by which they could keep in touch with lecturers or get help.

(c) The most important point to arise from this survey is the consensus on the adjustment problem faced in the first year of teaching. (This view was also held by first year teachers in the UK,
trainers need to and there is, as covering the syllabus and making sure that some management problems. In addition to the task of management, there are the tasks of an organisational context which makes its own demands on the teacher. Class size has posed their first appointment. Tisher (1980) in his firmed for them that their choice of teaching as a career represented good judgement on their part.

8 General Comments

The second caveat to be borne in mind in follow-up studies of this type is that certain aspects of training might have been perceived by some students as unimportant during training and therefore had not registered until they had gained some teaching experience. This has been referred to by Katz et al (1981) as the “feed-forward problem” and it arises in situations when answers are given to questions not yet asked. So it was probable that in a number of instances students were making recommendations about experiences already provided but not attended to at an earlier point in time.

The next comment draws attention to the problems in carrying out follow-up studies on teachers. Any attempt to understand the work and experience of beginning teachers must take into account the nature of the job itself in the classroom. Furthermore, the classroom is set in an organisational context which makes its own demands on the teacher. Class size has posed some management problems. In addition to the task of management, there are the tasks of covering the syllabus and making sure that pupils master the material. The teacher operates a good deal of the time alone away from other teachers. Classroom events are unpredictable, and there is, as Jackson (1968) explained, a “here-and-now urgency and spontaneous quality that brings excitement and variety to the teacher’s work”. The urgency and spontaneity of a classroom situation would mean that beginning teachers would need to develop “coping strategies” to handle classroom events. Teacher trainers need to know a little more about these “coping strategies” or the “dailiness” of teaching.

It is quite clear now that there is a need for an induction period when newly graduated teachers are formally introduced to the school setting on their first appointment. Tisher (1980) in his survey of teacher induction practices in several countries has noted that in most cases national resources have been made available to support the entry of new teachers to teaching. If handled properly, induction should be an effective way of fitting the new teacher into the school setting and introducing him to the nature of the school facilities and administrative arrangements and generally the organisational structure of the school. These induction sessions should be school-located.

In the meantime, we hope to organise soon special induction sessions for 2 batches of students graduating in May this year on an experimental basis. These workshops will incorporate simulation exercises and role playing and we plan to invite principals to participate in these workshops. They will help prospective teachers apply the knowledge they have gained to the daily tasks that they will have to face. Of course, as Lacey (1977) concluded, the socialisation of teachers is a complex, “interactive, negotiated and provisional process”, and so no single set of workshops can satisfactorily take the place of the formative role of early experiences on the job.

9 Concluding Remarks

This preliminary analysis has made us a little more thoughtful about the next steps in this investigation. We are reminded of the important question posed in the title of the paper by Katz et al (1981) — “Follow-up studies: are they worth the trouble?” In the case of our programmes, some changes as proposed are being considered. Such decision-oriented investigations should be pragmatic in their focus, based largely on fact-finding questionnaires. While obviously the form of professional preparation cannot be determined on the basis of general survey information alone, nothing is to be gained by ignoring the demands for direct training for teaching. The message is clear: be practical (Lieberman and Millar, 1979). Being practical in this case involves taking into account the circumstances of the school, the direct applicability of ideas in a classroom and the social relations that young teachers enter into in a school setting.

It is important that we should be concerned with the demands of our trainees' first appointments. However, as a continuing investigation, it would need an overarching conceptual framework in order to study the experience and development of a teacher as he moved along a career path. We would like to consider a framework embodying ideas about the professional development of teachers that can lend coherence to studies concerned with teachers in the service. Conceptual frameworks are useful in providing different ways of describing and analysing
observed phenomena. According to Greenfield (1979), "There is no point in talking about data and methodology unless we are also prepared to talk about our ideas and beliefs — theories if you like — which give meaning to data and power to methodology".

However, the concept of a career in teaching is imprecise and unclear. Lortie (1975) refers to unstaged careers in teaching. Many teachers prefer not to move out of the classroom to assume positions of administrative responsibility. In any case, there is a limit to the number of opportunities or administrative positions within a school or the school system. There are, however, visible statuses (and rewards to go with them) within the present service provision for a career track that can be most attractive to the motivated teacher concerned with the basis upon which others would judge the degree of success achieved. Therefore, what constitutes success in teaching is a factor to consider in any study of the professional development of teachers.

Not all rewards in teaching are visible, of course. Dealing as they do with the immediacy of classroom events, the primary teachers in this and Jackson's (1968) study found satisfaction in the positive feedback from pupils, from the "expression on their faces", and in the fact that they had reached their pupils. These are very personal gratifications, and although teachers may find it embarrassing to acknowledge openly such rewards, they are nevertheless important for the maintenance of a teacher's self-concept and morale.

In a sense, then, the career route in teaching may well be defined by seniority statuses, positions of responsibility in a school (which may or may not attract financial rewards beyond those provided in the salary scales), courses taken and teachers' perceptions of success in a career. Such data on career routes may throw a little more light on the question of teachers' professional development. Only then can we establish on the basis of empirical data the extent of continuity and discontinuity between (and among) initial training, in-service education and a career in teaching. So, given the broader perspective for follow-up studies, they should, I think, be worthwhile as local initiatives.
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