
Title	Symposium on teaching practice
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Source	<i>ERA Conference, Singapore, 24-26 November 1994</i>
Organised by	Educational Research Association of Singapore (ERAS)

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SYMPOSIUM ON TEACHING PRACTICE

8th Annual Conference of the Educational Research Association

Conference Theme : Improving Educational Practice : Meeting the Challenge of Diversity

Plaza Hotel, Singapore : 24th-26th November 1994

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1. The Practicum and its Place in Initial Teacher Education

It has long been accepted that initial preparation for a professional career in such fields as law, medicine and related fields, and more recently, business and communication studies must have, as part of initial preparation, a period of study/learning under the supervision of experienced professionals. The practicum was held to have two features – it took place in a setting e.g. a law firm, school, hospital, in which the novice was to later work, and provided guidance and supervision by experienced professionals. In the case of teaching, the acceptance of the Practicum as a central feature of training has been largely a post-war phenomenon, going hand in hand with a general belief that a purely apprenticeship model with ‘normal school training’ was inadequate and that a knowledge base existed that could be systematically taught and examined and which could make the novice teacher understand better the complexities of teaching. However, as great emphasis was put on mastering the theory, the Practicum was developed to provide the necessary practice. While a number of variations like micro-teaching (simulated teaching within the university), School Experience (a short period of exposure to learn about school organisation and curriculum organisation), and Pupil Experience (early contact with small groups of pupils) have been introduced, the Practicum remains the central strategy for linking theory and practice.

While there is some agreement on the necessity for the Practicum, there is much less agreement on a number of vital aspects :

- 1) What are the objectives of a Practicum for beginning teachers and what are its essential features?
- 2) What would make for an acceptable period of practice, the value of block vs integrated practice and how links should be established between theory and practice?
- 3) What are the separate and joint responsibilities of university based staff and school personnel?
- 4) How are school personnel to be selected, rewarded, trained and supervised vis a vis their Practicum responsibilities?
- 5) What would be an appropriate way to assess student competence in teaching and to establish that links between theory and practice have been made?

Even when there is some agreement within a national setting, there is little data on what actually happens within the Practicum. This lack of data has made it difficult to analyse the Practicum critically with a view to improving its organisation.

2. The Singapore Context

Probably the single largest influence on current teaching practice arrangements at the National Institute of Education, Singapore, is the concept of the Practicum Curriculum, introduced at the then Institute of Education (I.E.) during the mid-1980s. Based on the idea of Cliff Turney (Turney, C. 1985), the Practicum Curriculum attempted to place the Practicum at the centre of pre-service teacher education programmes. Taught courses at I.E. were designed around key teaching 'processes' that teachers would be expected to master during their Practicum in school. These processes were : Planning, Inducting, Communicating, Managing and Evaluation. By linking taught courses directly to the teaching situation, Sim Wong Kooi, the then Director of the Institute of Education, envisaged that the barriers between theory and practice would be broken down.

Major reforms of the practicum, as it existed then, were undertaken to support the new pre-service programmes. Of these, the following were the most important and are discussed briefly here because of their continuing impact on the conduct of the present practicum. Firstly, an assessment instrument, known as the APT (Assessment of Performance in Teaching) was devised to assess performance on the five teaching processes. Provision was made for both formative and summative assessment. As a formative instrument, the APT form made provision for a profiling of strengths and weaknesses. Students' performance in each of the five processes was to be graded by NIE supervisors and cooperating teachers (CTs) at regular intervals on an A-E scale, in order to focus attention on aspects of teaching found to be relatively weak at any particular time. A significant development with regard to assessment was that, after much internal debate, there was an agreement that formative grades would be revealed to student teachers. Secondly, cooperating teachers were appointed by the schools and received briefings and handbooks from I.E. Thirdly, the notion of the 'supervision cycle' was introduced. This involved both I.E. supervisors and CTs in cycles of pre-lesson conferences, lesson observations and post-lesson conferences with student teachers. NIE supervisors and CTs were expected to hold a minimum of five such conferences each over the course of a ten week block practice. Fourthly, the practice of holding regular 'tripartite meetings' was encouraged. These were sharing meetings between I.E. supervisors, CTs and student teachers, held at the beginning, middle and end of the practice.

The practicum curriculum marked a concerted effort to bridge theory and practice and to demarcate the roles of I.E. supervisors and CTs. It was discontinued on the formation of the NIE. Though formally abandoned as a programme, much of the framework established for the practicum still remains intact, and indeed no replacement for it has been devised. Thus, student teachers still undertake block teaching practices, known as the Practicum; schools still appoint cooperating teachers who are expected to assist and evaluate student teachers; and both they and NIE supervisors still use the APT form for assessment.

3. The Research Project

3.1 Introduction

The research project (1) set out to investigate two aspects of a typical teaching practice for primary school teacher trainees in Singapore. These were the division of labour between university-based supervisors and school-based cooperating teachers; and post-lesson conferences held between student teachers, supervisors and CTs. Although there is a large research literature on the practicum in general, including a small number of Singapore studies, very few empirical studies have been conducted worldwide into practicum conferencing, and to our knowledge this research provides the first systematic data available on the conduct of post-lesson teaching practice conferences in Singapore. It also provides up-to-date information on the sharing of supervision by school-based and university-based staff.

3.2 Methodology

3.2.1 Background

A typical NIE teaching practice for pre-service primary school trainee teachers was chosen for the study. Data was collected by means of tape-recordings of post-lesson conferences, student diaries and questionnaires. 206 questionnaires were returned by student teachers and 152 by cooperating teachers taking part in the Diploma in Education and BA/BSc teaching practice during the Autumn term of 1992. Of these, 33 student teachers, 24 university supervisors and 17 school-appointed cooperating teachers were involved in the analysis of post-lesson conferences. A modification of a discourse inventory originally devised by Zeichner and his associates in the USA, (Zeichner, K.M. et al. 1988) was devised for the purpose of analysing the tape-recorded conferences of students with both their cooperating teachers and university supervisors. A methodological innovation was the use of student diaries as a way of studying the impact that conferences made on the student teachers.

For the purpose of analysing tape recordings ten minute segments were chosen from either the beginning or end of the tapes. In all 92 post-lesson conference tapes were analysed, 57 from NIE supervisor conferences, and 35 from CT conferences. Like Zeichner, the key measure of discourse that we incorporated into our discourse inventory was the "thought unit". By this we mean the smallest discriminable segment of verbal behaviour to which the observer, after training, can assign a category listed on the discourse inventory (Bales, R. 1951). The thought unit measurement provided us with a way of quantifying discourse. In terms of what to measure, we also followed Zeichner in making a distinction between the substance and manner of discourse. Essentially, this involved a distinction between what was talked about (substantive discourse) and how it was talked about (practical discourse). All told we included 8 substantive and 4 practical categories, producing 32 possible combinations for each thought unit recorded on the inventory. In all, 2,292 supervisor, 1,165 CT and 1,152 student teacher thought units were recorded, totalling 4,609 thought units. Of the 1,152 student thought units, 944 were recorded in conferences with supervisors and 208 in conferences with CTs.

3.2.2 Practical Discourse Categories

Our final inventory contained four types of practical discourse. However, we decided not to take separate measures of a number of sub-categories, as Zeichner had done, because we found this gave the instrument a complexity that confounded us and ruled out any possibility of achieving adequate reliability. Thus, though we retained the subcategories of “descriptive”, “informative”, and “hermeneuric” as useful descriptors of different types of factual discourse, we decided not to collect separate measures for them, preferring instead one overall measure of each major category. The four major categories of practical discourse that we used were :

(a) Factual Discourse: discourse pertaining to “what has occurred in a teaching situation or with what will occur in the future”.

(b) Prudential Discourse: discourse that “revolves around evaluation of what has been accomplished”. It includes instructions, advise/opinion, evaluation and support.

(c) Justificatory Discourse: discourse that “entails the identification of various types of reasons and rationale underlying past, present, or future pedagogical actions and factors related to such actions”.

(d) Critical Discourse: we extended Zeichner’s definition that critical discourse “assesses the adequacy of rationales offered within the realm of Justificatory Discourse”, to include discourse intended to elicit critical reflection on, as well as student suggestions about, alternative pedagogical action. Critical discourse, on this definition is about getting the student to reflect either on the adequacy of pedagogical reasons or to consider alternative pedagogical actions. We feel that this should be clearly distinguished from prudential discourse where supervisors or cooperating teachers make suggestions to the student teacher about alternative pedagogical actions.

Table 1 shows the overall distribution of practical thought units between the four categories. Just over 50% of Factual thought units are recorded, followed by 31% Prudential, 13% Justificatory and a tiny 3% of Critical thought units. There were no noticeable differences between CTs and supervisors.

TABLE 1: Overall Distribution of Practical Thought Units

CATEGORY	N	%
FACTUAL	2409	52.3
PRUDENTIAL	1447	31.4
JUSTIFICATORY	616	13.5
CRITICAL	137	3.0
TOTAL	4609	100.0

3.2.3 Substantive Discourse Categories

Substantive discourse categories are concerned with what was discussed in post-lesson conferences. The categories we used are shown in Table 2 which shows the distribution of thought units between the substantive categories for all post lesson conferences. It shows that overall, talk about lesson procedures dominates discussion, taking up almost 40% of time. This is followed by talk about students which takes up around 17% of time, and talk about management and curriculum materials which together account for just over a further 25% of time. The remaining four categories account for fewer than 20% of thought units, with discussion on goals accounting for only 3%. There are no significant differences between CT and supervisor conferences.

TABLE 2: Distribution of Thought Units between the 8 Substantive Categories for all Conferences

CATEGORY	N	%
INSTRUCTIONAL PROCEDURES	1780	38.6
STUDENTS	748	16.2
CURRICULUM MATERIALS	727	15.8
MANAGEMENT PROCEDURES	496	10.8
LESSON GENERAL	292	6.4
STUDENT TEACHER	229	5.0
CONTEXT	192	4.1
GOALS	135	3.1
TOTAL	4609	100.0

3.2.4 Factual-Substantive Combinations

In practice, practical and substantive thoughts units were combined, such that each thought unit was scored on both dimensions. Analysis of these combinations showed that post-lesson conferences were dominated by mainly factual and prudential discourse on matters to do with instructional procedures, students and curriculum materials.

3.3 Supervisory Discourse: Some Observations

3.3.1 The Telling Style of Supervision Discourse

Supervision discourse on this teaching practice was characterised by what we term a telling style. In common with findings reported by Zeichner for the United States, discourse in post-lesson conferences was dominated by the university supervisor or school-based cooperating teacher, and was commonly of a factual or prudential nature. Analysis of the tape-recordings and student diaries revealed that cooperating teachers and university teachers were typically eager to tell; eager to pass on to students the wealth of experience that they had accumulated over the years. On average only one quarter of all talk in post-lesson conferences was student talk. Just as school-teachers have been found to speak for three quarters of the time in classrooms, both our supervisors and cooperating teachers similarly dominated talk in post-lesson conferences, though this was more evident with the latter than the former.

The use of the 'thought unit' enabled us to take measures of the substance and quality of discourse. Regarding substance, we found that the dominant focus was teaching

methodology and very little time was devoted to discourse concerning pupils, discipline problems or contextual matters such as the children's home background. Student teachers, for the most part, did not appear to need telling how to deal with discipline on this teaching practice. We found this result surprising given the general view that discipline and survival are the major concerns of the student teacher.

3.3.2 Quality of Discourse

Our findings with regard to the quality of discourse, however, were much more in keeping with those reported in the literature. Discourse was found to be predominantly of a factual or prudential nature, and there were few instances of justificatory or critical discourse. In common with others, we have characterised such factual and prudential discourse as being 'low level' discourse where the focus of discussion is on what is and should be the case. In contrast, 'high level' discourse is characterised by justificatory and critical thought. Both supervisors and cooperating teachers were more prone to tell, and especially to tell what should be done, than they were to involve themselves in discussions of why things should be done in a particular way or whether there might be other, better ways of doing them. Of course, by describing discourse as being low level, we are not decrying its quality and the undoubted value of the observations and professional judgements involved. What we are saying is that it might have been moved to a higher, more explicitly analytic level.

A comparison of university and cooperating teacher discourse revealed that, overall, both adopted the same telling style reported above. Both appeared to share what we have characterised as an apprenticeship model of supervision. By this we mean that the context of encounters was fundamentally hierarchical – between mentor and apprentice, the latter expected to learn and replicate rather than criticise and innovate. Both appeared to draw on a shared set of ideas about what constitutes good teaching, and these ideas tended to be rooted in the reality of the classes under discussion. As a consequence, we could not detect any major differences in the content of discourse. For example, we did not find university supervisors making links with university courses and we did not find cooperating teachers drawing on their detailed knowledge of pupils. Both were preoccupied with the immediacy of the classroom and the discourse of both drew on a shared body of conventional wisdom about teaching.

3.3.3 Opportunity to Talk

Supervision involves a number of tasks, but essentially it involves talk. For student teachers, opportunities to talk with experienced and knowledgeable supervisors provide an opportunity to learn and develop. It is difficult to say from the data exactly how much of the time spent by university staff and CTs was devoted to talk. From the student questionnaire, we know that on average CTs spend around 5.5 hrs per week helping the student teacher, and university supervisors a further 1.5 hrs. Presumably some of this time would have involved discussion over and above that in post-lesson conferences. With regard to formal post-lesson supervision conferences, however, the data is clearer. One quarter of the students report an average length of 10 minutes or less, and a further 25% an average of 20 minutes or less. Only 14% of students report an average post-lesson conference of 30 minutes or over. The length of the tape recordings that we analysed were of similar duration. Very few pre-lesson conferences were held, and there were a negligible number of joint meetings between supervisors, CTs and student teachers.

With regard to opportunities for students to talk in post-lesson conferences, we found that, taking all post lesson conferences together, student teachers contributed exactly 25% of the total thought units. Supervisors and CTs together accounted for 75%. However, there were two important differences between university supervisor and cooperating teacher conferences. Firstly, the conferences of the former were typically longer; and secondly, there was much more opportunity for students to talk in supervisor than in cooperating teacher conferences. In supervisor conferences students recorded 944 out of a total of 3,236 TUs (29%), whereas in CT conferences they recorded 208 out of a total of 1373 TUs (15%).

3.3.4 Closure of Talk

Despite differences in skill and role expectations, the adherence to this telling style led to a tendency of both university staff and cooperating teachers to close down opportunities for students to talk. For whatever reasons, there was an urgency to tell : to tell what had taken place and to tell what should be done to improve matters. In extreme cases, students did not say a single word, except for a 'thank you' at the end of the conference. In some cases, the supervisor clearly began with an intention of opening up discussion, as when conferences began with an opening question, such as, "Well, how do you think it went?" However, this opening gambit rarely translated itself into a sustained discussion. More often than not, the supervisor took over, working through what appeared to be a pre-arranged agenda of observations and advice. At many points in the tapes we came across instances of where discourse might have been moved to a higher level, but was closed down prematurely. In some cases, students pointed to instances in their diaries where they had wanted to justify and explain a particular course of action but were cut short and were unable to do so. By closing down opportunities to talk, ipso facto opportunities for reflection were closed down too. Feedback then, was in danger of being restricted to a rehearsal of the status quo, instead of being an exploration of alternative possibilities. Of course, there were supervisors who were able to engage their students and move discourse to a high level. When student teachers were given such an opportunity to talk, they typically used it, giving the lie to the stereotype of the reticent Singapore student, as well as to the assumption that student talk is inhibited by fears of assessment. Such supervisors used a range of skills such as open-ended questions, 'wait time', and prompts such as, "Did you consider other ways of doing that?", "Why did you choose to do that in this way?". Above all, they seemed to value the relevance of what the student teacher had to say.

As might be expected, university supervisors were more skilled in conducting conferences, though we did find some cooperating teachers who were equally skilful. This is to be expected, of course, as CTs for the most part were not trained in supervision skills, and, in any case, did not see lesson conferencing as their main role. Nevertheless, differences in training cannot explain the overall pattern of telling and closure that we have identified. It is likely that a combination of reasons accounts for this, particularly variations in conferencing skill, a commitment to dialogue as well as the management of large supervision loads and teaching commitments.

3.4 The Student Diaries

3.4.1 Introduction

It was obvious from the discourse analysis that there were large variations in the quantity and quality of discourse that the student teachers experienced. Many post-lesson conferences were of only ten minutes' duration, and contained few memorable points. Others, in contrast, ran to over 30 minutes and contained large quantities of information. As tape recordings of these conferences indicated that discourse was dominated by supervisors and CTs with little opportunity afforded for discussion, we hoped to gain some impression of the impact that these monologues had on students. The central assumption of post-lesson conferences is that students will remember something of what has been said, be convinced of its value, and will desire to change their practice in some way.

3.4.2 Methodology

To gather data, a student diary in the form of a questionnaire was designed with the following items:

- the main points that the students remembered being discussed
- the points made by the NIE supervisors and CTs which the students agreed with and why
- an explanation of the students' planning and teaching procedures
- the suggestions or advice offered by the NIE supervisors and CTs
- the reasons that the student teachers recalled were offered by supervisors and CTs for their suggestions and advice
- the reasons that the student teachers recalled being given that made reference to the student teachers' studies at NIE
- the usefulness of the suggestions made
- whether the NIE supervisor or CT made an overall comment on the lesson observed.

A random sample of 31 students from the larger sample completed the diaries. They were requested to complete the diary after each post-lesson observation conference. A total of 152 completed diary entries were returned to the research team at the end of the teaching practice.

3.4.3 Results

On average, students indicated that they remembered 3 key points made by NIE supervisors and 3 key points made by CTs. However, it was not possible to draw a comparison between the number of points made by supervisors and CTs during post-lesson conferences and the number of points which the student teachers indicated that they remembered. We were hoping to undertake this comparison at a later date when the transcripts of the tapes could be compared with the student diaries. From the analysis of the responses, it was possible to make a classification of the points which the students remember being discussed. They were : teaching materials; lesson planning; teaching methods/practices; classroom management; encouragement/moral support; discipline.

By far the greatest number of points that the student teachers noted down as points that they remembered being discussed were on teaching methods and practices : 167 out of 244 (68%) on the part of the supervisors and 174 out of 232 (75%) on the part of CTs. On the other hand, the student teachers noted down few points that they remember being discussed about lesson planning and teaching materials – 10% and 9% on the part of NIE supervisors and 8% and 6% on the part of CTs. Only 9% of the points the students remember being discussed by their NIE supervisors related to classroom management, and only 2% to discipline : the figures being 7% and 3% for CTs (see Table 3)

TABLE 3: Main Points that the student teachers remembered being discussed in post-lesson conferences (Percentages)

Points Remembered	Supervisor N-244	CT N-232
Teaching Materials	9	6
Lesson Planning	10	8
Teaching methods/practices	68	75
Classroom Management	9	7
Encouragement/moral support	2	1
Discipline	2	3
Total	100	100

In addition, students agreed with nearly 90% of the comments made by supervisors and CTs. They also indicated that few (20%) had been asked to justify why they had planned or taught a lesson in a particular way. The students also reported that over 70% of the suggestions offered by supervisors and CTs were either useful or quite useful, but only 12% indicated that the reasons for suggestions given made reference to studies at NIE. Finally, over 90% of students' responses indicated that supervisors and CTs were pleased with the lessons which they observed.

3.4.4. Discussion

From the analysis of the students' diaries, it was possible to make a number of observations regarding the impact of post-lesson conferences on students.

- a) NIE supervisors and CTs concentrated on critically reviewing and giving advice on students' teaching methods/practices. As the students perceived that these functions were the most important tasks performed by supervisors and CTs, there is a strong relationship between what the students expected from a post-lesson conference and what the supervisors and CTs did, in fact, offer.
- b) To a large extent, supervisors and CTs told students what they already knew as students generally agreed with the comments offered. However, this does not necessarily imply that students were acquiescent as their long silences in post-lesson conferences would suggest. For example, one student wrote in her diary that she

agreed with her supervisor's observation that the pace of her lesson was too slow because, the student maintained, a quicker pace "would maintain the pupils' enthusiasm." This type of response indicates that the students were reflective and the diaries offered an opportunity for reflection not afforded by the conferences themselves.

- c) Little reference was made to teaching materials and lesson planning during post-lesson conferences. Possibly, teaching materials could have been discussed at regular intervals between students and CTs during the course of a teaching week as students prepared their lessons under the guidance of their mentors. Consequently, there was no need to discuss them at post-lesson conferences. Moreover, as very few students were asked to explain why they planned and taught a lesson in a particular way, this may be an indication that supervisors and CTs appreciated that trainees lacked autonomy in determining the content of their lessons and that all concerned took the contents of lessons as given. Indeed, one student commented that she "planned her lesson according to the teachers' guide" which was offered to her by her CT. Discussions related to the reasons and rationales for teaching particular content could be seen as potential threats to the authority of CTs, schools and prescribed syllabus documents from the Ministry of Education.
- d) Surprisingly, little attention was paid to aspects of classroom management and the disciplining of pupils, given that these matters are generally considered to be the major concerns of students as they try to cope in the classroom as novice teachers. A possible explanation could be that student teachers involved in this research were in primary schools where, in the context of Singapore, class management presents fewer problems than perhaps at secondary level. Furthermore, it is possible that school principals gave student teachers 'easier' classes to teach. Although we do not know for sure what the precise reasons are, the data suggest that student teachers had mastered classroom management techniques to a certain extent and were experiencing few discipline problems.

In sum, the student teachers were able to remember a number of points made by their supervisors and CTs given in post-lesson conferences. However, few of the points appear to have been new to the student teachers and for the most part students appear to have been in agreement with them. Students on the whole found the advice given to be useful, though almost 30% either thought it to have little use or were not prepared to comment. Furthermore, they felt that their efforts were being appreciated.

3.5 The Role of Cooperating Teachers, and the Division of Labour Between Them and NIE Supervisors in Teaching Practice Supervision

3.5.1 Introduction

Cooperating teachers play a vital role in NIE's practicum training programme. They provide the guidance and support for the student teachers in school which are critical for the latter's initial professional development. As a part of this study, an attempt was made to find out how the cooperating teachers perceived their roles.

The CTs, in the performance of their roles, share the supervisory responsibilities with NIE supervisors. The justification for providing student teachers with both NIE supervisors and CTs is that neither could accomplish the task of supervision alone, and that each is in some way a specialist in key areas of the practicum.

3.5.2 CTs' Role and Tasks

In the teaching practice studied, what were some of the most common tasks CTs normally had to perform? Table 4 shows the tasks listed by the CTs in order of frequency.

TABLE 4 : Tasks Normally Performed by CTs

Tasks	%
Giving advice and guidance	85
Observing and supervising teaching	84
Inducting	61
Modelling and demonstrating	47
Acting as a friend	9

3.5.3 Division of Labour Between CTs and NIE Supervisors

Findings from the study show that there was a fairly clear division of labour in certain aspects of supervision by the CTs and NIE supervisors, and overlap in others. An indication of this could be seen through a comparison of the data on the CTs' perceptions of their roles and the student teachers' responses to the questions on the supervisory tasks performed by their respective CTs and NIE supervisors.

According to student and CT estimates, CTs spent an average of 4 hours each week in helping them, and NIE supervisors 1.5 hours per week, making a total average of 5.5 hours help per week. Table 5 shows in rank order the tasks normally performed by CTs and NIE supervisors.

TABLE 5 : Tasks Normally Performed by NIE Supervisors and CTs in rank order

TASK	SUP	CT
Observing and giving feedback on lessons	66	24
Giving advice on teaching methods/practices	57	34
Giving advice on lesson planning	55	49
Giving advice on classroom management	22	25
Offering encouragement/giving moral support	20	10
Helping to find teaching materials	9	71
Helping with discipline	2	8
Inducting student teachers	-	14

It can be seen from Table 5 that some tasks appeared to be shared. These were the ones concerned with giving advice – on teaching practices, lesson planning and on classroom management. There was a division of labour in terms of observing and giving feedback on lessons, which were seen as largely NIE supervisor tasks, and helping to find teaching materials, which was unequivocally a CT task. The CTs were also seen to be solely responsible for inducting student teachers into the school system.

The evidence thus suggests a certain degree of divided labour, with NIE supervisors and CTs performing specialised functions that the other might have found difficult or impossible to perform. In these respects, the roles of CT and NIE supervisors were both necessary and they were not easily interchangeable.

3.5.4 Usefulness of Supervisory Roles as Perceived by Student Teachers

The findings also indicate a discrepancy between the frequency of tasks performed by the CTs and NIE supervisors and their value from the student teachers' point of view. Table 6 shows in rank order the most useful tasks performed by the CTs and NIE supervisors as perceived by the student teachers.

TABLE 6 : Student Teachers' Perceptions of the Most Useful Tasks Performed by NIE Supervisors and CTs in rank order

TASK	SUP	CT	OVERALL
Observing and giving feedback on lessons	1	2	1
Advice on teaching methods/practices	2	1	2
Offering encouragement/giving moral support	3	4	3
Advice on lesson planning	4	6	4
Giving advice on classroom management	5	5	5
Helping with teaching materials	6	3	6
Inducting student teachers	7	7	7

It is quite clear that from the student teachers' point of view, for both the CT and NIE supervisors, the two roles which stand out as being the most useful are "observing lessons and giving feedback", and "giving advice on teaching".

On comparing Tables 5 and 6, it can be seen that for the NIE supervisors, the two tasks that they performed most frequently turn out to be the ones most valued by the student teachers. For CTs, however, the task of helping to find teaching materials, which they spent most time on, drops to third position in terms of its perceived usefulness.

A similar change in priority concerns the giving of encouragement. The student teachers quite clearly attached a much greater importance to this role than did the CTs and NIE supervisors who allocated much less time to it than to other roles. Ranked least in terms of its perceived usefulness was the inducting of student teachers into the school system. And yet, this had been seen by the CTs to be the most useful role that they could play.

3.5.5 Conclusion

The teachers selected to act as CTs were first and foremost experienced classroom teachers. Most, however, had little or no training in their CT role, and they appeared to have built their CT role around their own strengths as experienced practitioners in their own schools, and saw themselves as having much practical classroom teaching practice to pass on. Hence they perceived their main role as inducting the student teachers into the school.

NIE supervisors, on the other hand, possibly because they saw the student teachers less often, focussed on lesson observation and feedback, and giving advice on pedagogy. These were also roles that CTs were expected to perform, but perhaps because they had received no formal training in them, they seemed to have attached less importance to these roles, spent less time performing them, and felt less confident in their ability to help in these regards. They were more confident with technical areas of their role than with those

associated with conferencing with, and giving feedback to students. Yet these were also the supervisory roles that the students appeared to value the most.

Given the specialised functions and the degree of overlap that exists, it appears that a clearer delineation of the roles of the CTs and NIE supervisors based on the respective strengths of each could be established. It is also necessary to provide training support for the CTs to prepare them for their role so as to enhance their effectiveness in its performance.

4. Implications

What do these research findings indicate for NIE? We are aware that it is much easier to recommend changes than to actually implement them. Change of any kind implies the need to review assumptions, to change behaviour, to take on new and perhaps more demanding responsibilities. Change in this context of a collaborative enterprise between schools and NIE to prepare teachers is doubly complex for it involves institutions that have their different roles. Nevertheless, teacher preparation is such a significant aspect of Singapore's educational enterprise that where change is needed, it will have to be undertaken.

For NIE

- a) With the demise of the Practicum Curriculum programmes, there is a need for a reconceptualization of the nature and function of the Practicum, means for assessing student competence (APT form) and the links of the Practicum with university courses.
- b) Workshops should be mounted for NIE supervisors, especially in the area of supervision conferencing. Particular attention should be paid to the question of how higher levels of supervisory discourse might be encouraged. The format of the APT should be reviewed to see how changes to it could facilitate higher levels of supervisory discourse.
- c) Ways and means should be explored for encouraging CTs and supervisors to work more closely with one another.

For Schools

- d) Schools should be encouraged to identify a small number of experienced teachers to serve as cooperating teachers over a period of years, and not just for one or two teaching practices. Where possible, student teachers should be allocated one, and not more than two, cooperating teachers so as to build up a mentoring bond between the student teachers and their cooperating teachers.
- e) This smaller pool of cooperating teachers would need to be adequately trained. Such courses could help clarify the nature of the cooperating teacher's role, improve skill levels, and thus provide the confidence needed to fulfil role obligations.
- f) A means of providing both monetary and non-monetary rewards needs to be explored to increase the stature of the role.

FOOTNOTE

1. We are grateful to all those whose cooperation made this study possible, but especially to the NIE supervisors, cooperating teachers and student teachers who allowed us to listen in to their teaching practice conferences. In addition, we should like to acknowledge our appreciation of the support that we have received from the National Institute of Education.

Since preliminary results were presented at the 1993 ERA Conference, the completed research has been produced in book form and is available free of charge for those who would like more information on the project.

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