Monitoring & Evaluation of the Native-speaking English Teacher Scheme (MENETS)

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TECHNICAL REPORT

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INTRODUCTION

The Native English Teacher (NET) scheme provides funding for the recruitment of native-speaking teachers of English to serve in Hong Kong secondary schools. The present scheme commenced in the 1998/1999 school year.

Evaluation of the scheme was commissioned by the Standing Committee on Language Education and Research (SCOLAR) in June 1998. The Hong Kong Institute of Education (HKIE), after a tender exercise, was given funding support from the Language Fund to conduct the evaluation which is known as The Monitoring and Evaluation of the Native-speaking English Teacher Scheme (MENETS). The evaluation commenced in November 1998 and covered a two-year period to November 2000.

The results of the evaluation are reported in two documents: the Evaluation Report which provides a non-technical summary of the major findings of the evaluation, and this document, the Technical Report, which provides more complete details of the evaluation.

After providing background information, including the identification of an appropriate evaluation model, the Technical Report goes on to describe the complete research process including the sampling procedures, instrument design and analysis of the data generated by the instruments. Findings are reported and discussed in relation to the three major objectives of the scheme, i.e.

to enable native-speaking English teachers to enhance the teaching of English by:
1. acting as English language resource persons in the schools
2. assisting in school-based teacher development
3. Helping to foster an enabling environment for students to speak English and practise their oral skills.

Recommendations are made for the more effective operation of the scheme and for further investigation. Finally, the limitations of the present study are analysed and areas for possible further investigation are identified.

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1 Readers interested in viewing the statistical data generated from the evaluation are requested to apply in writing to MENETS Research Team, Centre for Language in Education, Hong Kong Institute of Education, 10 Lo Ping Road, Tai Po, N.T. Hong Kong.
1 Historical Background of the NET Scheme

1.1 Involvement of Native English Speakers in Hong Kong

A relatively recent rationale for the systematic recruitment of expatriate teachers for Hong Kong schools can be traced back to the recommendations of the Visiting Panel in 1982. However, there is a 150-year tradition of involvement of native speaking English teachers in Hong Kong coinciding with the colonial phase of Hong Kong history (Sweeting, 1990). Initially the influx of English speaking educators to Hong Kong was associated more with a desire to spread the gospel rather than the English language. This was related to missionary involvement in Canton, Malacca and Macau, and was not confined to educators of British origin (ibid. p. 20). Later, missionary zeal was transformed into a mission to civilise the local residents by freeing them of what were perceived as the shortcomings of traditional Chinese education. Frederick Stewart, founding head in 1862 of the Central School, recruited English native speakers from Britain (Bickley, 1997). Though Stewart's concern in this was with the provision of a British style education through the English language, it is interesting to note that he required staff recruited to the Central School to acquire at least a working knowledge of Chinese (Bickley, 1998).

1.2 Recommendations of the Visiting Panel

In the period between these early beginnings and the 1980s when the large scale recruitment of expatriates was once again considered, the teaching of English in Hong Kong schools had undergone a process of what the Visiting Panel in 1982 called “localisation” which the Panel considered had led to deterioration.

We consider the ‘localisation of staffing’ policy ought to be amended so that children in their first years of schooling might be exposed to native English speakers, engaged as ancillary staff either on a contract basis or accepted as helpers (e.g. the non-working spouses of British expatriates or other suitable English speakers).

(Visiting Panel, 1982. III.1.9)

In reality, in the period up to 1982, many local schools had employed native speaking teachers of English to enhance the teaching and learning of English, but this was done on an individual and ad hoc basis. The recommendations of the Visiting Panel sparked an interest, taken up in Education Commission Report No. 1 (ECR1), in the more widespread employment of expatriate teachers (Education Commission, 1984). ECR1 noted that provision already existed in the Code of Aid for up to three expatriates to be recruited for each school. This was not widely utilised, probably because of difficulties in providing adequate housing. The writers of the report recommended that schools should be encouraged to employ “locally available native English speakers”, but stopped short of recommending large-scale external recruitment.

Continued concerns at falling standards of English and a desire to enhance the quality of English teaching in schools prompted the Government to consider extending the employment of expatriates to a broader range of schools and a proposal was put forward for a scheme which “would in due course make available to each secondary school up to 2 or 3 qualified expatriate teachers of English, subject to funds being available” (Education Department, 1986 quoted in British Council, 1989). This prototype NET scheme began in 1987, was continued to 1991 and was revived in 1997 in the form of the current scheme.
1.3 The Expatriate English Language Teachers Pilot Scheme

The Expatriate English Language Teachers Pilot Scheme (EELTPS) began in August 1987 with the recruitment of 30 Expatriate English Language Teachers (EELTs). The Pilot Scheme was designed as a means of evaluating the impact of EELTs in a range of teaching situations in a representative cross-section of schools (British Council, 1989).

EELTPS was systematically evaluated through the exploration of multiple aspects of the impact of the EELTs on language learning and on the life of the school taking into consideration the views of various stakeholders regarding the contribution of the EELTs to school language education.

Quantitative measures employed in the evaluation focussed on Hong Kong Attainment Test results supplemented with results from specially designed tests of listening and speaking as well as questionnaires for students, teachers, principals and parents. Qualitative measures focussed on case studies of a sub-sample of schools.

Despite considerable initial problems (Boyle, 1997), reported outcomes indicated a generally positive impact for the scheme on English language learning. While refraining from drawing any conclusions as to the cost-effectiveness of the scheme, the evaluators concluded that EELTPS had had a positive effect on the teaching and learning of English in the Hong Kong secondary school and that educationally the continued employment of expatriate English teachers was viable (British Council, 1989 p. 182).

The EELTPS evaluation was rigorous and the conclusions drawn are objective. Alan Davies, who was responsible for the quantitative evaluation, is extremely careful in reporting results and points out from the outset that the identification of language gain is "hugely fugitive" (ibid, p. 20). Despite having been able to capture this fugitive effect of the EELTs, Davies does not propose that the employment of more EELTs would necessarily solve the problems of falling English standards. He reminds the readers that there may be advantages to investing in the further training of local teachers as an alternative. He recommends further research, part of which would be an investigation of "the sense of local attachment and of continuity in the Hong Kong culture which by definition are not available to expatriates" (ibid p. 181).

This recommendation appears to be a veiled reference to problems associated with the acculturation (or lack of it) of the expatriate teachers, and the advantages which local Hong Kong Chinese teachers have over expatriates in this regard. According to Boyle (1997), these problems were detailed in the Interim Report on the scheme, however this report is not in the public domain and so any interpretation of Davies' recommendation is speculative. It is interesting to surmise however, that two aspects of the present scheme may have drawn directly on some of the less positive experiences of the past scheme. These are the inclusion of issues of acculturation in the implicit objectives of the present scheme (see 1.5 below); and the strategic attempts made to effect a smooth transition into the local workplace and to encourage harmonious collaboration between local English teachers and NETs.

1.4 The Expatriate English Language Teachers Modified Scheme

EELTPS was a two-year pilot scheme which was completed at the end of the 1989 school year. The systematic involvement of native speaking teachers of English in Hong Kong secondary schools was not discontinued at that time, but continued in the form of a "modified" scheme (ERE, 1991).
The Expatriate English Language Teachers Modified Scheme (EELTMS) involved 19 schools in the first year of operation and 14 schools in the second year. Thirty-three EELTs were employed in the 1989-1990 school year (on one-year contracts) and twenty-three in the 1990-1991 school year.

Evaluation of the scheme was less comprehensive than that for the EELTPS and was conducted internally by the Education Department. It comprised a quantitative analysis of HKAT results for students taught by EELTS. This analysis, however, did not make comparisons with results for students taught by local English teachers. The main part of the evaluation focussed on a series of questionnaire surveys of stakeholders addressing issues related to the implementation and effectiveness of the scheme with a focus on the effectiveness of the scheme management.

The conclusions drawn from the evaluation are positive. Principals and Panel Chairpersons were generally happy with the management of the scheme, and with the performance of the EELTs in their teaching and non-teaching duties.

1.5 The Native Speaking English Teacher Scheme

The systematic recruitment of native speaking teachers of English was re-introduced in 1998 as one of a series of measures designed to address the problems of perceived declining language proficiency identified in Education Commission Report Number Six (Education Commission, 1996, p. 18).

Though the findings of the EELTPS evaluation had provided a rather limited basis for recommending continuation, they were cited in the fourth Education Commission report as the justification for a decision to introduce a "permanent scheme" in 1991 (Education Commission, 1990). This is however, the sole hint of permanence in any new scheme and the sixth Education Commission report suggests that this latest NET scheme was an interim measure designed to make up for a shortfall in the numbers of trained English teachers in the schools.

"...before an adequate number of local teachers are trained, schools should be encouraged to employ on local terms more native English teachers who are qualified English language teachers, to teach the subject."

Education Commission, 1996. p. 4

The introduction of the scheme was announced by the Chief Executive of the Hong Kong Special Administrative Region (HKSAR) Mr Tung, Chee Hwa in October 1997 on the occasion of the first policy address of the new HKSAR Government (Hong Kong Special Administrative Region, 1997). The scheme was implemented in September 1998 with the recruitment of a total of 388 teachers in the 1998/1999 school year. The total number of teachers recruited under the scheme rose to 440 in the 1999/2000 school year and stands at 441 at the time of reporting.

Concurrently with the NET scheme proper, which was confined to secondary schools and special schools in the secondary sector, two separate school organisations received funding from the Language Fund and the Quality Education Fund to enable them to introduce expatriate teachers into their primary schools during the period 1998 to 2000. Under these two primary school schemes a total of 16 teachers were recruited. In the current report, the term the NET scheme is used to refer to both the primary and secondary applications of the scheme in the period from September 1998 to July 2000.
The two primary schemes had a two-year life span in their original form (NETs continue to be employed in the primary sector in different ways, though not commonly simply as teachers). The NET Scheme proper, however, was granted a five-year term when the funding for it was voted, with the implicit understanding that renewal of the funding would depend on achievement of expected outcomes.
Selecting an Appropriate Evaluation Model

The evaluation literature is very substantial indeed. The Hong Kong Institute of Education library, the largest in Hong Kong with a collection dedicated to education, lists 2677 titles which include the word "evaluation". This literature is replete with different models for the design of evaluation studies including Decision-oriented, Goal-free, Naturalistic, Illuminative, Transactional, Intrinsic, Responsive, Adversarial, and Judicial (Walberg and Haertel, 1990).

Rea-Dickins and Germaine (1998) in an overview of the current state of the art in educational evaluation, identify a movement away from empirical evaluation models to a more holistic approach drawing on Cronbach's view of the evaluator as "an educator whose success is to be judged from what others learn" (Cronbach et al, 1980). This entails moving away from "a narrow judgemental definition" which "presents evaluation as an objectives-driven undertaking associated with the conventions of experimental design" towards a view of evaluation as a "curriculum-focussed inquiry grounded in professional practice of an illuminative, responsive and developmental rather than recommendatory nature" (Rea-Dickins and Germaine, 1998 pps. 11-12).

Although modern educational evaluation studies would tend to adopt the holistic orientation outlined by Rea-Dickins and Germaine (op. cit), in policy-driven evaluation there are other priorities that need to be taken into account. This is the case in the present study, where the client, while valuing the formative information which holistic evaluation can provide, requires a more traditional objectives-driven approach in addition. The financial commitment involved in the NET scheme is substantial. Moreover, the scheme is perceived to carry an implicit threat to the job security of existing English teachers and hence is being kept under close scrutiny. These factors militate against an evaluation which is solely "illuminative, responsive and developmental" and will certainly require account to be taken of cost effectiveness when the policy makers come to evaluate the evaluation.

Funding for the scheme was approved on the basis of a rationale setting out the expected benefits it could bring (see section 3.2.1.1 and Appendix I below). Evaluation therefore needs to include judgement of the extent to which the expected benefits have been realised.

In seeking an appropriate model to structure the evaluation, therefore, reference was made to two relatively recent approaches which together satisfy both the modern call for a more formative evaluation, as well as the policy-makers need for a more objectives-driven study. These are the models proposed by Lynch (1990, 1996), and Weir and Roberts (1994).

2.1 The Context Adaptive Model

Lynch (1990) proposes an evaluation model focusing in particular on the evaluation of language programmes. This Context-Adaptive Model (CAM) provides a simple heuristic for the present study unencumbered by many of the constraints which some of the more rigid models proposed in the literature entail (Lynch, 1996). It provides seven simple steps which can structure the evaluation process as follows.

1. Determine the purpose of the evaluation
2. Determine what is being evaluated
3. List the themes which will structure the evaluation
4. Design the evaluation
5. Collect the necessary data
6. Analyse and interpret findings
7. Communicate the evaluation findings

2.2 The Project Framework Approach

Weir and Roberts (1994) also focus specifically on the evaluation of language programmes and initiatives. They draw reference in particular from the extensive experience of the British Council and the United Kingdom Overseas Development Agency in evaluating the effectiveness of sponsored language enhancement initiatives and projects. The Project Framework approach derived from this experience (ibid. p. 245) provides a matrix for analysing evaluation problems which can usefully complement the CAM procedure.

In the Project Framework approach, (i) immediate and (ii) wider objectives are identified as well as (iii) outputs from and (iv) inputs to the project. Indicators of achievement and means of verifying achievement are identified and underlying assumptions are clarified. The table below is a worked example of a project framework tailored to the present evaluation, focusing on the wider and immediate objectives, the project outputs, achievement indicators and the means of verification. The questions posed in each cell, serve as a checklist for assessing the evaluation design.

<table>
<thead>
<tr>
<th>Questions addressed in the Project Framework approach for MENETS</th>
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<tbody>
<tr>
<td><strong>Project narrative</strong></td>
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<tr>
<td><strong>Wider objectives</strong></td>
</tr>
<tr>
<td><strong>Immediate objectives (project purpose)</strong></td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
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The seven-stage CAM procedure, together with the prompts provided in the project framework approach template above provide a useful structure for reporting the evaluation of the NET scheme and will be adopted in the following.
3 Implementing the Evaluation Model

3.1 Determining the purpose of the evaluation

The evaluation of the NET scheme was put out to tender. The tender document is not a detailed specification and leaves several assumptions unstated. In bidding for the tender, the evaluation team set out an interpretation of these assumptions in the form of research questions and areas for investigation in the project. After some negotiation with representatives of the steering body, the Standing Committee on Language Education and Research (SCOLAR), the bid was accepted. This acceptance was an implicit recognition that the purpose of the evaluation had been addressed by the project design.

This acceptance of the implicitly agreed purpose of the evaluation does not provide a clear and unambiguous foundation upon which to develop the project. A more explicit statement of purpose was needed to guide the implementation of the proposal. Before finally determining the purpose of the evaluation of the NET scheme, it was necessary to identify the purpose of the scheme itself.

The prompts of the Project Framework approach serve as useful guidelines in the process of identifying the purpose of the evaluation. The wider objectives or problems which the project will help to resolve and the intended benefits and changes which the project will bring about as well as the outputs to be produced by the scheme to achieve the objectives (Weir and Roberts, 1994 p. 245) can be identified by documentary analysis of the various pronouncements, reports and other documents which led to the introduction of the scheme.

3.2 Wider and Immediate Objectives and Outputs of the NET scheme

Official statements of the objectives of the NET scheme are characteristically terse and tend to take the benefits of employing native speaking language teachers as understood. This is evident in statement, going back to the report of the Visiting Panel in 1982 and culminating in ECR6 in 1996 (see section 3.2.1.1 and Appendix I). On the other hand, there is a growing body of literature which has questioned the implicit assumptions underlying the employment of language teachers on the basis of first language or racial origin and which has characterised the role of the English native speaker as a form of linguistic imperialism (Boyle, 1997; Cook, 1999; Kachru, 1985; Medgyes, 1992; Phillipson, 1992; Pennycook, 1994; Rampton, 1990; Widdowson, 1994, 1999).

The rationale for the introduction of the scheme gave the appearance of being anchored in an earlier tradition, one that saw native speakers as necessarily the best teachers of second language. On the other hand, it is difficult to see the scheme as a form of linguistic imperialism since it was introduced by a post-colonial regime which had just instituted Chinese as an official language of Government for the first time. Nevertheless, the scheme has been interpreted as a form of linguicism (Law, 1997; Lai, 2000) and hence it is necessary to unpack the implicit rationale which underlies its introduction. Documentary analysis is a useful means of doing so.

3.2.1 Documentary Analysis

In order to be able to make the expected outcomes of the NET scheme explicit and set parameters for evaluating the achievement of these outcomes, it is necessary to trace from the
available evidence, what the assumed benefits of the scheme are. The following section therefore attempts to trace the assumptions underlying the NET scheme in order to identify the implicit objectives of the scheme. This is done by identifying key phrases from the relevant documents and pronouncements.

A similar process was undertaken by Johnson and Tang (1993) two of the evaluators of the EELTPS. They conducted an analysis of documents, pronouncements and views from various sources including the British Council (who were responsible for the organisation and management of EELTPS), the Education Department, the media and key stakeholders in the scheme. Based on this analysis, Johnson and Tang identify two levels of aims for the scheme — official stated aims, and ‘controversial’ unofficial aims (ibid. p.206).

The official aims they identified were two-fold, namely:
1) to raise the quality of English language teaching in the schools;
2) to improve the standard of English of the students taught by the expatriate teachers.

What Johnson and Tang consider more important however, were the unofficial aims, namely:

To change the sociolinguistic climate of the workplace: i.e. to change the school from an ethnocentric, monolingual, Hong Kong, Cantonese-speaking environment, to a bilingual, bicultural, internationally-orientated workplace:

a. by providing a need for Chinese staff to use English for professional, administrative and social purposes; and
b. by providing opportunities for students to interact with non-Chinese, non-Cantonese-speaking members of staff outside as well as inside the classroom.

(ibid. p.205-6)

3.2.1.1 Selection of Documents for Analysis

In the present study, the documents analysed are as follows:

Report of the Visiting Panel, 1982
Education Commission Report No. 1, 1984
Education Commission Report No. 6, 1996
Chief Executive’s Policy Address, October 1997
Finance Committee Agenda Item paper for Finance Committee Meeting on 21 November 1997
Net-working: Examples of Good Professional Practice within the NET Scheme, May 2000

Since the intention is to unpack the implicit rationale for policy makers’ decision to introduce the scheme, the selection of documents is narrower than that of Johnson and Tang (op. cit.) and has concentrated on official papers.

Relevant extracts from these documents are reproduced in Appendix I with phrases giving clues as to the objectives of the NET scheme underlined. Inferring from the key phrases in
these documents allows for the identification of the purpose of the NET scheme which can be stated as follows.

NETs are seen as a solution to the problem of low standards of English among teachers in Hong Kong schools and the quality of language teachers must first be improved before language standards can be raised. There is definite educational benefit to be gained from teaching English in schools by native English speakers and NETs can help to raise the quality of the teaching and learning of English in schools. The long-term solution may be to have adequate training for local teachers, however, before an adequate number of local teachers are trained it is expedient to recruit large numbers of NETs. It is expected that local teachers and expatriate teachers will work together in the teaching of English. To make an immediate impact on improving the English language standard of our students, NETs will therefore be introduced to all schools. They will help to enhance the teaching of English in schools adopting Chinese as the MOI. They will act as English language resource teachers, assist in school-based teacher development and help foster an enabling environment for students to speak English and practise their oral skills. The scheme can play an important role in enhancing English language proficiency in furthering Hong Kong’s status as a world-class international centre. The key roles of the NET are: to enhance the English language proficiency of individual students; to demonstrate contemporary approaches to the teaching and learning of English and to share professional ideas with their fellow English teachers.

Further clues as to the thinking underlying the re-introduction of the scheme announced in the October 1997 Policy Address can be found in a circular issued to schools soon after the announcement, listing possible duties for NETs. An extract from this circular is reproduced below.

The exact duties of NETs should be determined by the principals according to the specific needs of the school. It is proposed that the duties of NETs should cover the following:

1) To be responsible for classroom teaching and assessment;
2) To provide support to the English Panel Chairperson, including assisting in the tailoring of the curriculum and preparation of teaching materials;
3) To assist in conducting extra-curricular activities related to the English language, e.g. speech, drama, debates, choral speaking and extensive reading;
4) To assist in running more oral activities for students after school;
5) To assist in setting up an English corner in the school where students can come together to practise oral English and read English books under their guidance; and
6) To act as an English language resource person for other teachers in school.

Guidelines on the duties of the NETs appointed under the enhanced NET Scheme,
Education Department, November 1997

In the conceptualisation of the role of the NETs which underlies this specification, we can discern a possible clarification of the “educational benefit” which was mentioned in ECR1. According to the Education Department document, the primary benefit to students from being exposed to a NET would appear to be in the area of oral proficiency. While the NET has a clear role in curriculum tailoring and materials development, the emphasis of the suggested activities
the NET would undertake is on oral skill development with a secondary emphasis on extensive reading.

A final source which was referred to in identifying the implicit purpose of the NET scheme and hence of the evaluation of the scheme was a letter from SCOLAR to Heads of Institutions dated 23 June 1998, in which bids were invited for the evaluation of the project. A relevant extract from this document is reproduced below.

Researchers must consider all aspects of the scheme including induction programmes for the Native-speaking English teachers, the contents and syllabus of their teaching, the teaching and assessment methods used, student benefits, and professional exchanges between local and native-speaking teachers, etc.... The research methodology employed should allow inferences to be made on the effectiveness of the NET scheme towards students' development of English language proficiency and in terms of integration of NETs into the school administration, with colleagues etc.

Letter from SCOLAR to Heads of Institutions, 23 June 1998

In this tender specification the expected student benefits are more general, not being stated in terms of oral proficiency alone. Moreover there is a clear expectation that the effectiveness of the scheme should be determined partly in terms of how well NETs integrate into the life of the school.

From the above exercise we can draw conclusions which provide answers to the questions posed in the Project Framework grid on page 17 above.

3.3 Wider objectives the scheme will help to resolve

The following question is posed in the Project Framework approach:

What are the wider objectives or problems which the NET scheme will help to resolve?

The scheme is seen as one of a number of possible solutions to the problem of the falling standard of English in Hong Kong. The fall in standards is attributed in part to the poor quality of language teaching in the schools which is in turn a result of the insufficient numbers of qualified language teachers. The NET scheme is a short- to mid-term measure to raise the quality of language teaching by increasing the number of subject-trained, graduate English teachers. The expected educational outcome of this is improvement in the language standards of secondary school students with a particular focus on their oral ability. The scheme can also play a role in compensating for the impact of loss of an English-speaking environment in CMI schools. The NETs can serve as resource persons in the schools contributing to the development of teaching materials and to the professional development of other staff both implicitly, by serving as a model and sharing professional ideas, and explicitly by providing training.

There is not a great deal of evidence in the official documentation to support the sociolinguistic aims detected by Johnson and Tang (1994) i.e. to change the school from an ethnocentric, monolingual, Cantonese-speaking environment, to an internationally-orientated, bilingual, bicultural workplace. However, the emphasis on integration of NETs into the life of the school noted in the official documentation indicates that the acculturation problems experienced by expatriate teachers in the EELTPS and EELTMS had been recognised. There was recognition
that effort needed to be made to avoid a repetition of the same socio-cultural problems seen in the earlier schemes.

3.4 Intended benefits and changes the scheme will bring about

The following question is posed in the Project Framework approach:

*What are the intended benefits and changes which the NET scheme will bring about?*

Based on the identified objectives, we can infer that the scheme is expected to result in improvement in the quality of language teaching through a system where NETs are integrated into the life of the school, serve as models of good practice, produce teaching resources and effect gains in student language proficiency.

Not all of these benefits would be measurable within the term of a two-year evaluation project such as that reported here. The recruitment of the planned 700 NETs would have an immediate effect in increasing the proportion of qualified English teachers in the school. A measurable increase in the quality of English language teaching is unlikely to occur in the short term however solely by the addition of one or two qualified native speakers to the school staff. Indeed the impact of the NET on the enhancement of language teaching in general is likely to be difficult to quantify due to the range of intervening factors at play, including other Government initiatives to raise the quality of teaching in general and language teaching in particular.

3.5 Outputs, ways of assessing their achievement and sources of information

The following questions are posed in the Project Framework approach:

*What outputs are to be produced by the scheme to achieve the objectives?*
*What are the quantitative or qualitative ways to assessing their achievements?*
*What sources of information exist or can be provided cost effectively?*

Using the terms of the Project Framework approach we can characterise the objectives, outputs, achievement indicators and means of verification as follows.

*Project Framework — achievement indicators and means of verification*

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Achievement Indicators</th>
<th>Means of Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced quality language teaching</td>
<td>Better public examination results; greater employer satisfaction; NET inputs to the school curriculum, resources and language learning provision; involvement of NETs in teacher development activities</td>
<td>HKEA Statistics; Employer feedback; Quality of NET contribution to the curriculum, resources and language learning provision</td>
</tr>
<tr>
<td>Integration of NETs into the life of the school</td>
<td>Good professional and social relations between NET and local teachers; NET job satisfaction; positive reports from school personnel</td>
<td>Case study interviews and observations; Questionnaire responses</td>
</tr>
<tr>
<td>Enhanced student proficiency</td>
<td>Enhanced performance on HKAT; gain on language tests administered before and after exposure to NET teaching; improved attitudes to the language and its speakers leading to greater motivation to learn</td>
<td>HKAT results; Results on specially designed language tests; Improved student attitudes as measured by questionnaire</td>
</tr>
</tbody>
</table>
3.6 Parameters of the Present Study

The table above serves as a specification grid analysis of which can serve as a means of setting parameters for the present study. The next section presents the outcome of this analysis in the form of the scope of the study, what it can achieve, the research questions formulated to drive the investigation and the methodology adopted to carry it out.

In order to view the present study from the correct perspective, it is worthwhile reminding ourselves of the difficulties which it is has to attempt to overcome. In particular, the measurement of language gain unambiguously resulting from a particular treatment has been recognised in the academic literature as being a notoriously difficult exercise. Recent evaluation models have emphasised a more holistic approach in which the impact of an innovation on the quality of educational outcomes is charted by means of narrative description rather than by quantitative means. Berretta (1992) recognises these difficulties but points out that studies of the impact of an innovation on the quality of education are not what policy makers need. “Comparative outcomes based on tests are precisely what the policy making community needs to know about.” Berretta advises that, in this circumstance, “in spite of known difficulties, it is appropriate to make the best use of whatever tools are available.”

Alderson (1992) raises a serious concern which quantitative evaluators need to bear in mind when communicating results. This is related to the fact that the audience for evaluation results may not be fully aware of what can reliably be shown by means of quantitative evaluation. According to Alderson, policy makers “often...require test data, understandably enough if they are interested in outcomes, yet lack the professional expertise to recognise the appropriacy (sic) of instruments, the misapplication of tests, or to interpret test results with suitable caution. Tests yield figures, figures look like hard data, and tend to be believed, naively.” (ibid. p. 284).

In a situation where large sums of public money have been invested in a not uncontroversial innovation, there will be considerable public interest in results which can show unequivocal benefits. This poses a particularly serious problem when the innovation in question is not likely to yield concrete outcomes in the short to medium term.

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4 Objectives of the NET Scheme

Three major objectives were set for the Native-speaking English Teacher Scheme in the 1997 Finance Committee paper (Education Department, 1997a). According to that document, the objectives of the native-speaking English teacher scheme are:

To enable native-speaking English teachers to enhance the teaching of English by:

a) acting as English language resource persons in the schools
b) assisting in school-based teacher development
c) helping to foster an enabling environment for students to speak English and practise their oral skills.

4.1 Purposes of the Evaluation

The major purpose of the evaluation is to assess the extent to which the objectives of the scheme had been met within the first two years of its operation. Drawing on the contextual analysis reported in the previous section, the purposes of the Monitoring and Evaluation of the Native English Teacher Scheme can be stated as follows:

1) to conduct an in-depth and comprehensive investigation into how the NET scheme operates in the ecology of local schools;
2) to identify the effects of the scheme on the key players and how they react to it; and
3) to carry out a quantitative evaluation of the effectiveness of the scheme in generating language proficiency and attitude gains among the pupils involved.

These can be stated more specifically as follows:

• to examine, over a two year period, the teaching and learning approach adopted by NETs including their approach to the school syllabus, their influence on it and contributions to it, in the form of teaching, learning and assessment materials, methods and approaches;
• to investigate the effects of the introduction of NETs on the social and professional life of the school.
• to investigate the effects of the scheme on English language proficiency and attitude towards English among pupils in the schools involved;

4.2 Research questions

The purposes of the evaluation were operationalised in the form of three major research questions which served to guide the investigation:

1. What is the nature of the teaching and learning approach adopted by NETs and how does it differ from that of local teachers in terms of:
   a. approach to and influence on the school syllabus?
   b. teaching, learning and assessment materials, methods and approaches adopted?
2. What are the effects of the introduction of NETs on the social and professional life of the school?
   How do NETs and local teachers collaborate and exchange expertise on professional issues such as developing the syllabus, production of instructional materials, organising extra-curricular activities, and management of students?
3. What is the effect of the NET Scheme on student language learning in terms of the English language proficiency and attitudes towards English among pupils in the schools involved?

In addition, in order to monitor the induction programmes, a fourth research question was formulated as follows:

4. How effective are the NET induction programmes in:
   a. helping NETs understand the situation in the schools?
   b. ensuring that NETs adapt to the school situation and the local environment?
   c. enhancing the work performance of NETs?
5 Research methodology

The research questions were investigated by means of language proficiency assessments, questionnaire surveys, and case studies. The applications of the various methods are shown in the table below. Detailed descriptions of the various instruments and of the case study methodology is provided in section 6 below.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Investigated by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Effectiveness of induction</td>
<td>Examination of materials &amp; evaluation reports</td>
</tr>
<tr>
<td></td>
<td>Observation of sessions</td>
</tr>
<tr>
<td></td>
<td>Follow up interviews</td>
</tr>
<tr>
<td></td>
<td>Questionnaire surveys</td>
</tr>
<tr>
<td>2. Nature of NET teaching and learning approach</td>
<td>Questionnaire surveys</td>
</tr>
<tr>
<td>3. Effects of NETs on the social and professional life of the schools</td>
<td>Questionnaire surveys</td>
</tr>
<tr>
<td>4. Effect of NET Scheme on language learning</td>
<td>Measurement of language gain</td>
</tr>
<tr>
<td></td>
<td>Questionnaire surveys</td>
</tr>
</tbody>
</table>

The overall intention was to identify the nature of the influence of Native speaking teachers on the professional and social life of the schools involved and on the language development of pupils and students. This influence will be referred to in the following as a NET effect.

5.1 Tracing the professional and social effects

As indicated above the NET effect was traced in a variety of ways. The impact of NETs at the school level was measured by questionnaire surveys in a quasi-experimental design which attempted to trace developing attitudes among all the key players including the students involved and their parents. These were designed to supplement the main avenue of investigation of these aspects of the scheme which was conducted by means of in-depth qualitative investigation in seven schools using case study methods. The case study data generated from the investigation is considered to be the most reliable and authentic since it represents a more direct source of information as to the effects of the scheme at the school level.

5.2 Measuring Language Gain

The NET effect on language proficiency and attitude to language was traced by means of investigation on experimental groups made up of primary and secondary school students taught by NETs matched with control groups from schools not employing NETs or from classes not taught by NETs.

As we have seen in section 3 above, part of the rationale for employing NETs in the local schools is to improve the quality of language teaching. This enhanced quality language teaching is expected to result in a greater improvement in language proficiency among the students taught by the NETs, compared to those students taught solely by local teachers.

In order to explore this expectation, it is necessary to make comparisons between local English teachers and NETs in terms of the results achieved by the students they teach. We can translate
this into a testable hypothesis, i.e. that students taught by NETs will perform better in certain aspects of language use than students of a similar ability who are taught by local teachers.

The aspects of language use hypothesised to be the most likely focus of this language improvement will be related to special qualities and abilities of NETs which distinguish them from local teachers. It is not possible to generalise with any accuracy about the qualities and abilities which local teachers possess, given the great range of abilities, experience and educational background which local teachers may have. Moreover a similar range of backgrounds and experience can be found among the NETs recruited for the scheme. However, one clear distinguishing feature stems from the fact that English is the native language of the NETs. Another distinguishing feature of the majority of NETs, is that they do not speak the first language of their students. These characteristics imply that the presence of the NETs will encourage students to interact more in English, there being no other choice if students are going to communicate with the NET. The presence of the NETs will also expose students to a form of spoken English which represents a native standard as distinct from a local Hong Kong standard.

The job duties of the NETs as advised by the Education Department in a circular to schools (Education Department 1997b) focus on the potential of the NET in developing oral skills in the students. It is also clear from the Education Department’s celebration of the success of the scheme in the booklet entitled “Net-working” (Education Department, 2000), that the main focus of NET teaching activities is on oral skill development. This concentration on oral skills, is not avoided to the exclusion of other skills; indeed the first case study in Net-working focuses on an integrated skills approach. However there is sufficient evidence in the documents to lead to an expectation that any effects of the NET would be concentrated in the area of oral competence.

Based on these distinguishing characteristics of the NETs and their expected teaching and learning focus in the schools, a series of hypotheses was drawn up to guide the evaluation of the impact of NETs on student ability in the four language skills of reading, writing, speaking and listening.

5.2.1 Hypothesised Language Gains

5.2.1.1 Reading and Writing

Given the expectation that NETs would establish an English Corner in the school which would generate extensive reading activities, it might be expected that improvements in reading ability would result. However, this would apply to all students – those actually taught by the NET and those not, since the English Corner is an extra-curricular resource. Any effect of the English corner in terms of improved reading ability or attitude to reading would be felt across all users of the resource and not confined to students in classes taught by the NET. The major emphasis required of NETs, as listed in the guidelines issued to schools (Education Department, 1997b), was on the practice of oral skills. Assuming that the guidelines were followed, there would be little evidence to support a hypothesised gain in reading ability, as well as in the related skill of writing.

It was therefore hypothesised that there would not be any significant differences in the performance of students taught by NETs and those taught by local teachers on assessments of reading and the related skill of writing defined in terms of the skills normally taught, practised and assessed at the levels in question.
5.2.1.2 Speaking

For speaking, given the emphasis in the job description of the NETs (Educational Department 1997b), it was hypothesised that there were likely to be differences in the performance of students taught by NETs and those taught by local teachers on assessments of spoken ability defined in terms of confidence, fluency, obtrusiveness of pronunciation errors, effectiveness of communication strategies and grammatical accuracy in the spoken English skills normally taught, practised and assessed at the levels in question.

5.2.1.3 Listening

Again, given the expected emphasis of NET teaching on oral-aural skill development, for listening, it was hypothesised that there were likely to be differences in the performance of students taught by native speakers of English over pupils taught by local teachers in the ability to understand natural spoken English, where natural spoken English is defined as a variety of English with phonological features characteristic of first language varieties, but in which speed, lexis and vernacular usage are controlled to the level of the language learner.

It was further hypothesised that as compared to students taught by local teachers, students taught by native speakers of English would exhibit:

a) greater confidence in processing natural spoken English, indicated by less hesitation in responding to commands and instructions;
b) higher levels of accuracy in identifying the intended meaning of spoken utterances delivered in natural spoken English.

5.2.1.4 Attitude

The role of affective factors in language learning has been well documented in the literature. Gardner’s seminal publication, Social psychology and second language learning: the role of attitudes and motivation, (Gardner, 1985; and also Gardner, 1972) crystallised the issues and provided the impetus for a plethora of studies exploring the relationship between attitudes to the language and the effectiveness of language learning. The research provides evidence of a strong positive relationship between the effectiveness of language learning and positive attitudes to the language in question (Oller et al, 1972; Pierson & Fu, 1982; Gardner & MacIntyre 1991, 1993; Baker, 1992; Crew, 1994, 1995; Mantle-Bromley, 1995). These attitudes may be related to intrinsic or extrinsic aspects of motivation (Sadono, 1991; Williams, & Burden, 1997; Ehrman & Dornyei, 1998; Dornyei, 2000).

Based on the attitudinal and motivational literature, hypotheses were formulated with respect to language attitude which guided the evaluation team in the design of an instrument (based on existing instruments (British Council, 1989; Hepburn, 1991) to explore the developing attitude to English and to English speakers which could be attributed to exposure to a NET.

It was hypothesised that student attitudes towards English would be enhanced by positive experiences of exposure to native speakers of the language. It was likely therefore that there would be differences in attitudes towards English among students who were exposed to a NET.
or taught by a NET and those who were not. This enhanced attitude was hypothesised to manifest itself in an increase in their willingness to expose themselves to more English in the form of reading, watching and listening to more English. In addition, if the scheme has an effect on enhancing proficiency in English, these forms of the language would be made more accessible to students.

Being exposed to a NET was hypothesised to bring the important realisation among students that English is a medium of communication, rather than just a school subject. This may result in greater willingness to use English in communicating with friends and greater confidence in communicating with native speakers of English generally.

In order to test these hypotheses it was decided to employ existing assessments supplemented by commercially available tests and/or specially developed instruments as necessary.

5.2.2 Existing Instruments

5.2.2.1 Language Assessments

All primary school students and junior secondary school students are expected to take standardised annual tests of Chinese, English and Mathematics developed by the Educational Research Section of the Education Department. For English, these Hong Kong Attainment Tests comprise assessments of reading, listening and writing. The tests are designed for various purposes including the assessment of achievement in English at each school level, the diagnosis of strengths and weaknesses in the subject “for guidance and counselling” and the identification of less able pupils for remedial treatment. (Hong Kong Government 1997a; 1997b). The evaluation of the EELTPS employed Hong Kong Attainment Tests as the prime source of data regarding improvement in student language proficiency resulting from the scheme (British Council, 1989).

With the exception of the most recently developed tests for the primary sector, Hong Kong Attainment Tests (HKATs) do not include an assessment of spoken English ability. In addition, examination of samples of HKATs revealed that the assessment of listening and writing was somewhat limited in relation to the language proficiency hypothesised to result from exposure to native-speaking teachers as opposed to local teachers. It was therefore considered essential to identify or develop tests to supplement the information which would be provided by the HKATs. Similar considerations had motivated the EELTPS evaluators to develop supplementary tests of listening and speaking. Unfortunately, however, those tests were not available for use in the present project. Section 6 below describes the instruments which were developed specially for the current study.

5.2.2.2 Attitudinal Questionnaires

It was not possible to identify an existing questionnaire tailored to the precise needs of the evaluation of the NBT scheme and able to address the gains in language attitude and motivation hypothesised to result from the scheme. It was necessary therefore for the evaluation team to design a new instrument. In doing so however, reference was made to an instrument designed for two earlier local studies. One was the instrument developed for the evaluation of the EELTPS by the British Council which included semantic differential items eliciting
perceptions of personality traits of speakers of English (British Council, 1989). The second was an instrument developed for a study exploring the relationship between motivation, attitude and effective language learning strategies (Hepburn, 1991).

5.3 Sampling Procedures

The research instruments were applied to two samples of primary pupils and secondary school students taught by native English teachers. These two samples are known as the first and second cohorts in the following discussion. The two cohorts are distinguished by the length of exposure to the NET as follows:

First Cohort - Secondary school students and primary school pupils taught by a NET in the period September 1998 to July 2000;
Second Cohort - Secondary school students and primary school pupils taught by a NET in the period September 1999 to July 2000.

The measures taken to ensure that the first and second cohort samples were representative of the population are described below.

5.3.1 Selection of Secondary Schools

5.3.1.1 Sampling Criteria

(A) Fundamental Criteria

Multi-stage stratified random sampling was employed to develop the sample of secondary schools for the project using the following criteria:

- School district;
- Medium of instruction;
- Gender balance;
- Funding type;
- Religious affiliation;
- Level of ability of students in the school.

The last criterion, level of ability of students in the school, was used to group schools into three levels of student ability - Low, Medium and High. This was based on the relative proportions of students in the school falling into different levels of ability as indicated by the Planning and Research Section of the Education Department of the HKSAR Government.

(B) NET Deployment

Another important variable was the deployment pattern of the NETs in terms of the type of teaching they were expected to undertake in each school context. In the absence of central information on NET deployment patterns, the project team undertook a survey to obtain a better understanding of the general pattern of NET deployment. Simple questionnaires were faxed to all secondary schools employing NETs (n = 388) requesting information about the mode of deployment of the NET. One hundred and seventy-eight questionnaires were returned, a return rate of 46%. Although the return rate was not high, the responses showed a clear and
consistent pattern with three major modes of deployment clearly identified: Oral-only, Whole class and Split class.

- In the Oral-only mode, the NET was deployed usually to teach at least one lesson per week or per cycle to all classes in the school.
- In the Whole class mode, the NET was assigned up to four whole classes and asked to teach all the English lessons to those classes.
- In the Split class mode, the NET was assigned parts of up to four classes and asked to teach all the English lessons to those students.

Split Class Deployment Patterns

The patterns of deployment in the split class mode were varied with at least seven possible variations as follows:

1. One class is split at random (i.e. not according to the ability of the pupils) and the NET is deployed to teach half the class for the whole term or year, while the other half of the class is taught by a local teacher.
2. One class is split according to the ability of the pupils and the NET is deployed to teach the higher ability half of the class for the whole term or year, while the other half of the class is taught by a local teacher.
3. All classes at a particular level are split at random (i.e. not according to the ability of the pupils) and the NET is deployed to teach half of each class for the whole term or year, while the other half of each class is taught by a local teacher.
4. All classes at a particular level are split according to the ability of the pupils and the NET is deployed to teach the higher ability half of each class for the whole year, while the other halves of the classes are taught by local teachers.
5. One class is split at random (i.e. not according to the ability of the pupils) and the NET is deployed to teach the higher ability half of the class for part of the year (e.g. alternate cycles or weeks), while the other half of the class is taught by a local teacher.
6. One class is split according to the ability of the pupils and the NET is deployed to teach half the class for part of the year (e.g. alternate cycles or weeks), while the other half of the class is taught by a local teacher.
7. A class is taught by both the local teacher and the NET in a team-teaching mode.

Typical Deployment Pattern

The range of variations in split class teaching created a complicating factor which was compounded by the fact that in both the Whole and Split class modes, NETs could also teach in the Oral-only mode for different levels of class. A typical deployment pattern might be:

- 2 F3 whole or split classes;
- 1 F4 whole or split class;
- Oral lessons for all F1 and F2 pupils; and
- Extra-curricular activities (ECA).

In this case, any NET effect in the school would be felt in varying degrees by selected F3 and F4 students (through whole/split class teaching); by all F1 and F2 students (through oral only teaching) and by the students in the whole school (through ECA).
Another variable affecting the drawing up of a representative sample was the date on which the NETs commenced employment. During the period covered by the evaluation, NETs were recruited in four main batches. The first batch was recruited in September 1998, the second in January/February 1999, the third in August 1999 and the fourth in August 2000. Only NETs from the first three batches are involved in the study.

Based on the deployment information and the commencement of employment dates of the NET, four strata were identified in the first stage for the 1st cohort and an additional stratum was identified for the 2nd cohort as follows:

1. non-NET school (schools without NETs - referred to as NNET schools);
2. old NET school (schools employing NETs from Sept 1998);
3. new-NET school (schools employing NETs after 15 Jan 1999); and
4. oral-only school (schools with NETs teaching oral classes only).

For the second cohort investigation a fifth category of NET is examined: i.e.:

5. brand-new NET school (schools employing NETs for the first time in September 1999);

5.3.1.2 Drawing up the Sample

The school sample was drawn up based on the selection criteria and deployment information described above in order to ensure as far as possible that the sample was representative of the population of schools employing NETs. Several of the selected schools were not willing to participate in the evaluation however. Participation was voluntary. Once schools learned of implications of participation, i.e. involvement in oral, written and listening assessments, provision of HKAT scores and completion of questionnaires, many declined the invitation. This necessitated the identification of replacement schools which met the original criteria. Eventually, 49 schools agreed to be involved in the study.

Two cohorts of students were investigated. The first cohort, involving schools employing NETs from September 1998, provided the opportunity to investigate a two-year effect of exposure to a NET. The second cohort included schools employing brand-new NETs (i.e. category (v) above) and provided an opportunity to investigate a one-year effect.

(A) Identifying Control Groups

In order to meet the requirements of the quasi-experimental design, control groups needed to be identified matched to the groups examined experimentally for NET effects. In most cases, this could be done within schools. For each class chosen for investigation, control groups were identified from schools with similar characteristics according to the sampling criteria with particular emphasis placed on matching school level.

In the case of Oral-only NETs the influence of the NET would be felt across all the students in the affected classes. In many cases NETs deployed for Oral-only teaching would be teaching most of the students in the school for one lesson a week. The only way to identify control groups for NETs deployed in this way would be to look at schools which had not employed a NET at all (NNET schools). It was not easy to identify such schools since all government and
subsidised secondary schools were allocated funding to recruit NETs. Schools would not be likely to turn down this opportunity to acquire additional well-qualified staff. Moreover, schools which had taken a conscious decision not to take advantage of the NET funding would have done so for reasons which would probably affect their usefulness in a representative sample. This posed problems for the identification of control groups for oral-only NETs.

It was possible initially to take advantage of the difficulties schools experienced in recruiting NETs, by inviting schools which had not been able to recruit a NET to participate. In the first cohort investigation, four such NNET schools agreed to provide control groups. The majority of the original NNET schools, however, declined the invitation to participate. In the second cohort investigation it was not possible to identify any NNET schools willing to take part in the evaluation.

In order to accommodate this difficulty, a new category of group was identified, namely those which had been taught by both local teachers and NETs. This meant that in identifying a NET effect, different student groups could be identified according to the type of teacher they had been exposed to. The different types of teacher are as follows:

i. the NET;
ii. a local English teacher (LOCAL);
iii. the NET and a local English teacher (BOTH).

(B) First Cohort Groups

First cohort groups, in most cases, experienced a change of teacher for the second year of the evaluation study. Indeed it would be highly unlikely for a class to be able to experience a two-year period of NET teaching, since there was usually a determined effort to share this new resource among as many students as possible in the school.

In the two years covered by the First Cohort sample nine possible combinations were identified as shown in the following table.

<table>
<thead>
<tr>
<th>Groups</th>
<th>In the 1998/99 school year, the group was taught English by</th>
<th>In the 1999/2000 school year, the group was taught English by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>a NET</td>
<td>a NET</td>
</tr>
<tr>
<td>2)</td>
<td>a NET</td>
<td>a LOCAL English teacher</td>
</tr>
<tr>
<td>3)</td>
<td>a NET</td>
<td>BOTH a NET and a local English teacher</td>
</tr>
<tr>
<td>4)</td>
<td>a LOCAL English teacher</td>
<td>a LOCAL English teacher</td>
</tr>
<tr>
<td>5)</td>
<td>a LOCAL English teacher</td>
<td>BOTH a NET and a local English teacher</td>
</tr>
<tr>
<td>6)</td>
<td>a LOCAL English teacher</td>
<td>a NET</td>
</tr>
<tr>
<td>7)</td>
<td>BOTH a NET and a local English teacher</td>
<td>BOTH a NET and a local English teacher</td>
</tr>
<tr>
<td>8)</td>
<td>BOTH a NET and a local English teacher</td>
<td>a LOCAL English teacher</td>
</tr>
<tr>
<td>9)</td>
<td>BOTH a NET and a local English teacher</td>
<td>a NET</td>
</tr>
</tbody>
</table>
(C) Second Cohort Groups

In the one year covered by the Second Cohort sample three possible combinations were identified as shown in the following.

<table>
<thead>
<tr>
<th>Groups</th>
<th>In the 1999/2000 school year the group was taught English by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>a NET</td>
</tr>
<tr>
<td>2)</td>
<td>a LOCAL English teacher</td>
</tr>
<tr>
<td>3)</td>
<td>BOTH a NET and a local English teacher</td>
</tr>
</tbody>
</table>

In practice, due to the small numbers of students in some of the nine groups identified in the first cohort sample, it was necessary to collapse groups together for the purpose of analysis. For example, groups 2 and 6 (NET - LOCAL and LOCAL - NET) can be treated as one. The same applies to groups 3 and 9 as well as groups 5 and 8. In cases where the proportion of time the class was taught by the NET differed between the first and second years, the actual amount of NET exposure was factored into the equation in order to identify NET effects.

5.3.1.3 Second Stage Sampling

In the second stage of sampling, there are two main streams: the school assessment sample and the questionnaire survey sample. The sampling procedures for these two streams were quite similar and both depended on the NET deployment mode of the individual sampled school.

For the school assessment, secondary students in F1 / F3 / F4 who were taught by NETs were first selected (NET class). Then students taught by local English teachers (NNET class) at the same level were selected for comparison. These students were of similar ability as defined by their teachers following guidelines issued by the evaluation team. Schools were instructed to select an average ability class from each form level investigated, and then to select students of High, Medium and Low ability. For the student questionnaire surveys, similar procedures were employed for the selection of subjects. The questionnaires designed for school personnel were sent to all schools except the NNET schools. As a result, school personnel in only 45 secondary schools were involved. This would have provided a rather small sample of key personnel and therefore another 28 secondary schools were randomly selected based on the same selection criteria described above. In these schools, only the school personnel - Principal, Panel Chair (or subject leader in the primary schools), the NET, 1 local English teacher and 1 Non-English teacher, but not the students, were invited to complete questionnaires.

5.3.2 Selection of Primary Schools

Sampling Strategy

Primary pupils in P3 and P5 were selected for the investigation. The primary schools involved in the evaluation project represented a fortuitous sample of schools willing to participate in the evaluation and no claims are made as to the degree to which the sample represents the population of primary schools.
The number of primary schools employing NETs using funds awarded by the Language Fund and the Quality Education Fund was less than 30 in total. The schools came from two organising bodies. Since the number of schools involved was relatively small, it was decided to invite all the primary schools which were employing NETs with the use of these specially awarded public funds to participate in the evaluation project. In addition, from the same organising bodies, schools which had not recruited NETs were invited to participate in order to provide control groups.

Considerable difficulties were encountered in gaining the full participation of all these schools as planned. Indeed, none of the schools from one of the organising bodies was willing to participate in the evaluation until encouraged to do so by the sponsoring body, the Quality Education Fund. With this encouragement, a greater proportion of the schools agreed to take part, but this change of heart did not come until late in the project.

Since the planned involvement of all primary schools employing NETs with public funds could not be achieved, the primary data set is incomplete. Since the sample which was eventually drawn up was a fortuitous one, no claims are possible as to how far it represents all primary schools employing NETs. Furthermore, according to information provided by the Education Department, the schools involved fall into the broad range of primary schools with high proportions of high and medium ability pupils. No schools with high proportions of low ability pupils were involved. The omission of low ability schools means that the primary school sample was clearly not representative of the population of primary schools.

5.3.3 Sampling for Case Study Schools

Seven schools were selected from the main sample for in-depth investigation in case studies. In view of the intensive nature of these investigations, it was not possible simply to select case study schools - a great deal of negotiation was needed to persuade schools to submit to this intensity of investigation. Since it was often difficult to find schools which were willing to be investigated in this way, and due to the small number of schools involved, it was not possible to apply strict sampling procedures to the selection of case study schools. Nevertheless, the four secondary schools involved in the case study were selected from the main sample which can claim to be representative of the population. The two primary schools were medium level schools in terms of proportions of pupils of different ability levels and hence might have a reasonable claim to be representative of schools at that level. The Special School selected for the study was a Practical School following the normal curriculum. (See Appendix II below).
6 Language Proficiency Assessments

6.1 Research Instruments

The research instruments employed for assessing students' language proficiency are the Hong Kong Attainment Tests as well as the oral, listening and writing tests designed and developed exclusively for this research.

6.1.1 Hong Kong Attainment Tests

Instrument Description

The Hong Kong Attainment Tests (HKAT) are standardised tests of English, Chinese and Mathematics designed with a four-fold purpose as follows.

1. To assess pupils' achievement in the three basic subjects of Chinese, English and Mathematics at each level;
2. To diagnose pupils' areas of strengths and weaknesses in the three basic subjects for guidance and counselling;
3. To identify the less able pupils for remedial treatment; and
4. To monitor the standards of the three basic subjects across years and levels (ERE, 1997)

The tests are intended to be administered to all pupils throughout the nine years of basic education in the Hong Kong Education system, i.e. from Primary One to Secondary Three.

Given the intended purpose of the tests, and in particular their intention in assessing achievement in English across years and levels, there appears to be justification in using HKAT results obtained from control (NET) and experimental (NNET) groups to trace a NET effect. This is supported by past precedent and by content analysis of the tests themselves.

The past precedent for the use of HKAT for tracing language gain as a result of a particular treatment comes from the evaluation of the EELTPS conducted by the British Council under the guidance of Professor Alan Davies (British Council 1989). Davies employed HKAT results to trace the effect of the expatriate teachers on language proficiency gain.

Each HKAT test is developed by a committee put together by the Educational Research Section (now the Planning and Research Section) of the Education Department. The committee comprises subject specialists from the Department and the Curriculum Development Institute as well as representatives from the school sector concerned and from local tertiary institutions. After piloting in schools, item analysis is conducted and reliability is estimated using Cronbach's alpha. The finalised test is critically scrutinised by a Test Construction Committee comprising different specialists and if found to be appropriate is endorsed for use in the schools.

Content analysis of the tests confirms that they are general language proficiency tests with reading, listening and writing components, as well as an oral interview, in the most recent versions of the primary tests (though not the ones applicable to the students in the present study). Administration and marking of the tests is standardised across schools by means of detailed instructions. Quoted reliability estimates for the tests are typically in a range indicating
a very high degree of internal consistency in the test results (The alpha coefficient for different forms of the tests typically ranges from $\alpha = 0.8$ to $\alpha = 0.9$).

HKAT results were solicited from schools for pupils in NET and NNET groups before and after their exposure to the NET. The tests are usually administered in May or June of each school year. The timing of the test administration introduces the need for a degree of caution in interpreting results, since any NET effect would not commence until halfway through the period of language development tracked by the test. The problem is represented in the diagram below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HKAT Pre-test</td>
<td>NET recruitment</td>
<td>HKAT Post-test</td>
</tr>
</tbody>
</table>

Moreover, although the available documentation states that HKATs are employed “to monitor the standards of the three basic subjects across years and levels” (ERE, 1997) informal and anecdotal evidence suggests that this is a potential function of the tests which is not actually operationalised. Indeed, it is understood that the HKATs are normed on an annual basis which would mean that longitudinal comparison of the performance of students or schools over time would require statistical manipulation of the scores.

It was decided that HKAT results would prove sufficient for the assessment of reading abilities and, with appropriate analysis, might provide an indication of general proficiency development over time. For listening and writing it was deemed necessary to supplement the information provided by HKATs. This was because listening was hypothesised to be an area where language gain resulting from exposure to a NET would be more likely to occur (see section 5.2.1 above). Therefore a more extensive and more focussed listening assessment than that included in HKAT was felt to be essential to provide more conclusive evidence. Also, in order to evaluate the hypothesis that writing skills would show no improvement as a result of NET exposure (see 5.2.1 above), a more open ended writing task was needed to supplement the information provided by the more guided HKAT writing components. For speaking a completely new or different test had to be employed since the HKATs which did include a speaking component were not in use for the cohorts of students examined in the study.

A search of the commercially available instruments for the assessment of listening, writing and speaking revealed that no tests were available which could assess the hypothesised areas of potential gain without contamination by cultural factors or other sources of construct irrelevant variance. It was therefore necessary to develop specially designed instruments to serve the particular purposes of the project.
6.1.2 Oral Assessment Instruments

6.1.2.1 Secondary Oral Assessment

(A) Instrument Design

The design and development of the secondary oral assessment instrument and procedures drew on a number of sources. Firstly, the bands of performance for Key Stage 3 (Secondary 1-3) and 4 (Secondary 4-6) as developed by the GDI were referred to in order to predict target language for elicitation. In addition, the new Syllabus for Secondary Schools (1999) provided further input on linguistic content as well as subject/topic areas. A number of contemporary course text books such as ‘New target English’, ‘English – A Modern Course’ and ‘Longman English Express’ were also referred to in order to make use of the content, topic and task types that students in secondary school students in Hong Kong are familiar with.

An important principle of the instrument design was that students would, for example, be used to performing in the oral assessment the type of task that they commonly undertake in their classes. Thus the ‘find the difference’ task that has for some time been commonly used in TBLF textbooks (e.g. Ur 1981, Watcyn-Jones 1997, Read 1991) and is now in use in contemporary Hong Kong secondary school textbooks (e.g. ‘New target English’) was felt to be particularly appropriate. This was borne out by the feedback from oral assessors and the ease with which the tasks appeared to lend themselves to the assessment procedure. In order to help alleviate test bias, it was also important that the subject or content areas used in the assessment were ones that we could safely assume students would be familiar with. Thus the picture topics ‘at the park’, ‘at home’, ‘in the classroom’ and ‘the picnic’ were found to be appropriate and suitable.

(B) Development and Piloting

Three task types were tried out for the oral assessment for secondary one and three. They were all designed for administration to students in pairs, seated facing each other. First, a Communication Task was designed in which pupils are given two similar pictures. Based on the differences, pupils are asked to describe them or to find a mutually agreeable time for an appointment. Pupils do not see each other’s pictures and are encouraged to contribute equally to the task. Secondly, a Role Play task was designed in which pupils were given a description of a situation and expected to take on roles and interact with each other in improvising a conversation. Thirdly, an Open Discussion task was designed in which the examiner was encouraged to develop a more natural, open and spontaneous dialogue and conversation with the pupils as an extension of the two previous tasks. Sample questions for the elicitation of more spontaneous speech are provided for assessors.

Pilot oral assessments were carried out at in a secondary NET school. The purposes were three-fold: to pilot the assessment instrument that had been developed, to obtain demonstration sample video and audio tapes for the training of assessors as well as to gain some baseline data for students’ language proficiency.

<table>
<thead>
<tr>
<th>School</th>
<th>Class</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary</td>
<td>F. 1</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>16 (8 pairs)</td>
</tr>
<tr>
<td></td>
<td>F. 3</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>16 (8 pairs)</td>
</tr>
</tbody>
</table>
Findings of instrument piloting

Major revisions had to be made to the materials used in the secondary school pilot due to the inappropriate level of difficulty of two of the communication tasks and all four of the role-play tasks. In the revised secondary materials, the role-play section has been replaced with a picture description task and two communication tasks. In addition, two more samples of communication tasks have been added with visual illustrations. The need for a graphic artist was also considered necessary.

The Oral Assessment instrument used at both junior secondary (F1) and at senior secondary (F3, F4) consisted of three main stages: communication task, picture discussion and open discussion. Students were interviewed in pairs. Regular class teachers were asked to put their own students into pairs of similar ability to avoid one student becoming too dominant. Students were given five minutes to prepare for the interview beforehand during which time they were given an information sheet, in Chinese, explaining the interview procedure and a mark sheet on which they completed their personal details (name, class, teacher, etc). Assessors were advised to employ student helpers to act as timekeepers and ushers and to distribute these documents to the candidates. After the 5-minute preparation period, candidates entered the interview room in pairs, where the assessment was conducted.

Assessors greeted the candidates naturally, trying to put them at their ease. Candidates were asked if they had had sufficient time to prepare and if they understood the interview procedure. If they didn’t understand the procedure, the assessor explained this to them. Up to this point, candidates and assessors could use Cantonese, but beyond this point the assessors were instructed to speak only in English. The oral assessment procedure was as follows:

Assessment Procedure

Warm-up Stage

Both students being interviewed were asked standardised warm-up questions e.g. “Hello, how are you?” “What’s your name?” “How old are you?” “Which class/grade are you in?” The purpose of the warm-up stage was to ease the candidates into speaking English in a relaxed, informal manner. This ‘pre-stage’ of the interview was not assessed.

Stage 1: Communication Task

Candidates were seated facing each other and both were given a picture, which was similar but not identical. They were not allowed to see their partner’s picture but were instructed to find up to 10 differences through asking their partner questions, describing and discussing the pictures. Assessors encouraged the candidates to contribute equally to the task and if one pupil was dominating they encouraged the quieter of the two to participate more. At the end of this pair work communication task, both candidates were asked to summarise a few of the differences. All the interviews were recorded on audio tape, and a smaller number on video tape for subsequent moderation and second stage analysis.
Stage 2: Picture Discussion

In this second stage of the interview, the candidates were given another picture which this time they had to describe and discuss. The assessors elicited language from the candidates by asking them to talk about the pictures. If they were unable to do so or if little language was elicited, specific questions were asked from a standardised list.

Open discussion

At the end of the second stage, assessors tried to develop a more natural, open conversation with the candidates in a kind of 'extension' of the picture discussion but which was more personalised and related to the candidates own lives and experiences. Again, a set of standardised sample questions designed to elicit more spontaneous speech was available in the assessors' test file packs.

During the oral assessment standardisation workshops (see section 6.3.3 below) the assessors were trained put the candidates at their ease and to elicit as rich a sample as possible of spoken English language by progressing from the general to the specific. To achieve this, a standardised questioning technique was employed which involved:

- starting with open questions. If this was unsuccessful,
- asking -wh questions. If this was unsuccessful,
- progressing to increasingly more specific questions. Then,
- asking choice questions, and finally,
- asking yes/no questions.

The interviews were designed to last for 12-15 minutes for F1 candidates and for 15-17 minutes for F3/F4 candidates. At the end of each interview, when the students had left the room assessors completed the mark sheets according to the assessment criteria in the test file packs.

(E) Assessment Criteria

The assessment criteria that were employed for the secondary oral assessment were derived from a number of sources. The theoretical constructs of oral proficiency and oral assessment were investigated with reference to Bachman (1990, 1996), Davies (1990), Weir (1990, 1993).

Some modifications were subsequently made to The Centre for Applied Linguistics rating scale for CAL oral proficiency (CAL, 1998) and this was used as the basis for the final descriptive criteria used in the secondary oral assessment. These criteria consisted of 5-elements: Comprehension/Communication, Fluency/Productivity, Vocabulary, Grammar and Pronunciation. Within each of these elements, there were 6 levels numbered from 1 (low level) to 6 (high level), resulting in possible overall scores ranging from 30 to 6 (although in a small number of cases assessors awarded 0 in some categories).

(F) Reliability of Secondary Oral Assessment

Cronbach's Alpha values for both administrations of the two cohorts were calculated with results as follows:
Internal Consistency of Secondary oral assessment (N of items = 5)

<table>
<thead>
<tr>
<th></th>
<th>1st Cohort</th>
<th>2nd Cohort</th>
<th>1st Admin</th>
<th>2nd Admin</th>
<th>1st Admin</th>
<th>2nd Admin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Oral Assessment</td>
<td>α = 0.9695</td>
<td>α = 0.9659</td>
<td>α = 0.9647</td>
<td>α = 0.9671</td>
<td>α = 0.9671</td>
<td>α = 1031</td>
</tr>
<tr>
<td>n</td>
<td>1426</td>
<td>928</td>
<td>597</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NB These Alpha score could not be raised by deleting any of the items

The above Alpha figures are sufficiently high to indicate that the items within the test are tending to measure the same trait/construct. However, given these unusually high figures, there is some question as to whether or not assessors were able to discriminate effectively between levels using the given descriptive criteria in the five categories, or whether in fact they ‘fixed’ in their own minds an overall total score and then proceeded to mark all of the separate categories. Nevertheless, the high Alpha scores mean that it is appropriate, given also that other prerequisites such as normal distribution were met, to analyse these data using conventional statistical techniques.

6.1.2.2 Primary Oral Assessment

(A) Instrument Design

In designing and developing the Primary Oral Assessment Instruments and the related procedures, a number of important factors were considered. Firstly, the Primary Syllabus, Key Stages 1 (Primary 1-3) and 2 (Primary 4-6) were referred to in order to establish an expected or predicted range of target language to be elicited. Secondly, widely used, contemporary primary course text books including 'New Welcome to English', 'Integrated Primary English' and 'Target English' (add proper citations for these) were referred to in order to establish suitable contents, topics and task types. It was also considered crucial to design an instrument containing content and different task types that students in primary school students in Hong Kong would be familiar with and would have had some experience in completing in their classrooms and with which students as a result would be more at ease. If student familiarity with test type and content could be assumed then this would also help to alleviate test bias since no one group of students would be more favoured than another.

The principle of designing task types for the oral assessment that students would be used to performing in class resulted in the development of a three-stage instrument. Thus the picture topics 'At the park', 'At home', 'In the classroom' and 'The picnic' were found to be appropriate and suitable.

The Primary Oral Assessment instrument consisted of three main stages: reading aloud, picture discussion and open-ended discussion and the assessment was administered to students on a one-to-one basis. Regular class teachers were asked to select a representative sample of students who they considered to be of high (above average), middle (average) and low (below average) ability. Students were given five minutes to prepare for the assessment and during this time they were given the text that they would be asked to read aloud and an information sheet (in Chinese) explaining the interview procedure. As in the Secondary Oral Assessment, assessors were advised to employ more senior student helpers to act as ushers and helpers, and to distribute the relevant documents to the candidates during their preparation period. After the 5-minute preparation period, candidates entered the interview room, where the assessment was conducted.
Assessors were briefed to greet the candidates naturally and in a friendly manner to put them at their ease in order to elicit the 'best possible' sample of spoken language from the students. Candidates were asked in Cantonese if they had had sufficient time to prepare for the assessment and if they understood the interview procedure. If they didn’t the assessor went through this with them, although post-assessment evaluation indicated that students did not have any problems in understanding the procedure. Up to this point, candidates and assessors could speak in Cantonese, but beyond this point the assessors were instructed to speak only in English. All the interviews were recorded on audio tape, and a smaller number on video tape for subsequent moderation and second stage analysis.

(B) Assessment procedure

The oral assessment procedure comprised four stages as described below.

Warm-up Stage

Students being interviewed were asked standardized warm-up questions e.g. "Hello", "Good morning!", "How are you?" "What's your name?" "Who is your teacher?" etc. The purpose of the warm-up stage was to ease the candidates into speaking English in a relaxed, informal manner. The full list of standardized questions can be seen in Annex 2 'Primary Oral Assessment Instrument and Procedures'. This warm-up stage of the interview was not assessed.

Stage 1: Reading aloud

Candidates were firstly asked to read aloud the text that they had previously been given to prepare. The four texts used in P3 - 'Peter goes to school', 'Bob and his family', 'Sally goes to the park' and 'Mary's home' were all of similar length, were topics that students had more than likely come across in class. Likewise, those texts used for P5 students - 'shopping on Sunday', 'where to go in Hong Kong', 'going to the peak' and 'after school fun' underwent a similar process. The linguistic content of the texts was also carefully considered to ensure that the lexis and structure were of equal difficulty and were appropriate for this age and level of student. Assessors were briefed not to intervene or correct students' reading aloud but to encourage students to attempt the task by themselves. Subsequent audio analysis and assessment evaluation revealed that this principle had been largely adhered to.

Stage 2: Picture Discussion

In this second stage of the interview, the candidates were given a picture that was the basis of a question and answer/discussion. Again, the four possible pictures used were themes commonly found in primary course books and were ones that students had probably been exposed to and even discussed in their class. The oral assessors elicited language from the candidates by asking them a series of standardized, specific questions about the pictures. The key point to this stage of the interview was that in a 5-step approach, if little language was elicited the assessors asked questions that began more open ended and became more closed. The purpose was for the assessors to establish the highest level at which they could communicate with the students.
Open-ended discussion

At the end of the second stage, assessors tried to develop a more natural, spontaneous conversation with the candidates that evolved from the picture. This discussion was designed to be more personalized and related to the candidates' own lives and experiences. Here too, a set of standardized sample questions designed to elicit more spontaneous speech was available in the assessors' test file packs if little language was elicited.

The oral assessment standardization workshops were run not only to standardize the application of the assessment criteria but also to develop a standardized set of techniques and procedures. The assessors were trained to put the candidates at their ease and to elicit as rich a sample as possible of spoken English language. Questions generally progressed from the general to the specific using the following 5 steps:

- step 1 - open questions;
- step 2 - "WH" questions;
- step 3 - more specific questions;
- step 4 - choice questions;
- step 5 - yes/no closed questions.

The interviews were designed to last for approximately 10-12 minutes for P3 students and for 12-15 minutes for P5 students. At the end of each interview, when the students had left the room assessors completed the mark sheets according to the assessment criteria in the test file packs.

(C) Assessment Criteria

The assessment criteria that were employed for the Primary Oral Assessment were derived from a number of sources. As in the Secondary assessment, the theoretical constructs of oral proficiency and oral assessment were considered with reference to the literature (e.g. Bachman 1990, 1996; Davies, 1990; Weir, 1990, 1993).

These criteria consisted of 6-elements: Reading Aloud, Fluency, Grammatical Accuracy, Pronunciation, Comprehension and Communicative ability. Within each of these elements, there were 4 levels numbered from 1 (low level) to 4 (high level), resulting in possible overall scores ranging from 4 to 24. Assessors were encouraged to conduct a few 'practice interviews' before administering the assessment in order to familiarize themselves further with the assessment procedure and the application of the criteria. Assessors were informed that the audio taping of the interviews would be used for subsequent moderation and standardization of the assessment and also for the second stage analysis.

(D) Reliability of Primary Oral Assessment

An internal consistency analysis was carried out on all of the administrations, producing Cronbach's Alpha scores ranging between 0.9376 and 0.9459. These results are shown in the table below.

| Internal Consistency of Primary Oral Assessment (N of Items = 6) |
|------------------|------------------|------------------|------------------|------------------|
|                  | 1st Cohort       | 2nd Cohort       | 1st Cohort       | 2nd Cohort       |
|                  | 1st Admin        | 2nd Admin        | 1st Admin        | 2nd Admin        |
| Primary Oral Assessment | $\alpha = 0.9417$ | $\alpha = 0.9364$ | $\alpha = 0.9376$ | $\alpha = 0.9459$ |
|                  | n = 505          | n = 448          | n = 232          | n = 210          |
The Alpha scores reported above are very high suggesting that assessors were not able to
discriminate very well between the six different elements. It is likely that a holistic score was
initially given to students and only afterwards were scores for individual elements given. To
help answer these questions, further studies have been undertaken and have been reported
separately (Gray, 2002). These involve:
1. Rasch scale modelling of oral assessment scores to determine goodness of fit and stability
   over time; and
2. An inter-rater reliability study.

6.1.2.3 Standardisation of Oral Assessment Procedures

One of the concerns that needed to be addressed in the design and application of the oral
assessment instruments in both primary and secondary sectors was the need for standardisation,
particularly since it was planned to use a large number of assessors. Both local teachers and
native English-speaking teachers from the schools within the sample group were invited to
attend training workshops to train as oral assessors. Those wishing to participate in the scheme
were only allowed to conduct oral assessments on condition that they attended such a
standardisation workshop in which test procedures, interview techniques and the application of
the assessment criteria were carefully explained and discussed. Due to teacher availability, it
was necessary to conduct a number of these workshops at which the assessors’ test file packs
were distributed, along with the audiotapes for recording. The assessment process and
procedure were fully explained and discussed and carefully selected samples of a wide range of
students’ oral production (video taped during test development and trialling by the MENETS
team) were shown to those attending the workshops. Participants were invited to apply the
assessment criteria to students in videoed interviews and through discussion and the viewing of
further videos, a consensus on students’ level and the application of the criteria were arrived at.
Assessors were also made aware of the fact that the audiotaping of the interviews was required
for moderation and standardisation purposes and also for the second stage analysis.

The standardisation process was conducted prior to the first administration of the oral
instruments and repeated before the final administration of the instruments for both first and
second cohort groups. In addition, a CDROM was produced setting out the assessment
procedures and providing examples of student performances. These performances provided a
permanent reminder of the interpretations of the assessment criteria at each of the various
levels.

6.1.3 Listening & Writing Tests

6.1.3.1 Secondary Listening and Writing Tests

(A) Instrument Design

The secondary tests were designed around the context of an interview with a Native English
Teacher. In preparation for the test, four interviews were conducted with Australian NETs
focussing on the themes of arriving and settling in to Hong Kong and differences between
Hong Kong and Australian schools. Input for the listening test was selected from the large
amount of data generated from these interviews. For F1, the simpler aspects of settling in and
physical differences between the two types of schools were selected. For the F3/F4 test, content
was slightly more demanding including settling in and some of the more complex comparative aspects of learning and teaching in the two types of school.

(B) Development and Piloting

The tests were moderated by the evaluation team and piloted on a class of around 25 below average secondary one pupils and a class of 38 below average secondary three pupils. The secondary one pupils found the test rather demanding and as a result of the pilot both versions of the test were simplified considerably and the secondary one version was piloted on a third class. Results from the second pilot suggested further slight modifications which were incorporated in the final versions of the test.

The F1 listening and writing tests were piloted in two secondary schools one NET and one NNET, and the F3 test was piloted in one school.

The listening sections of each of the secondary tests were found to be very demanding for the below average pupils in the pilot. The rate of speech was found to be too fast, the manner in which chunks of listening material were presented was felt to need reconsideration with further segmentation and repetition. After major modifications to the presentation, segmentation and speed of delivery involving re-recording the test with different speakers, the secondary one version of the test was administered to another group of pupils of similar ability level and the results found to be more satisfactory, but the test was still considered to be demanding. The writing sections of the all versions of the tests were well within the capabilities of all students in the pilot and these sections were not modified.

(C) Reliability

(i) Reliability of the Secondary Listening Test

As with the primary tests, time constraints meant that the reliability of the revised instruments could not be estimated except in terms of internal consistency and that the internal consistency of the refined test could not be estimated prior to actual implementation. The internal consistency of the refined listening tests was estimated on each administration using Cronbach's alpha yielding the results presented below.

<table>
<thead>
<tr>
<th>Internal Consistency of the Secondary Listening Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Cohort</td>
</tr>
<tr>
<td>1st Administration</td>
</tr>
<tr>
<td>α = 0.6883</td>
</tr>
</tbody>
</table>

As shown in the table, the internal consistency of the test ranges from acceptable to highly acceptable indicating that the results produced by the various parts of the test are sufficiently related to suggest that they are assessing a single construct.

(ii) Reliability of the Secondary Writing Test

The secondary writing test was a piece of continuous functional writing given in response to the thematic content of the listening test they had just completed. The writing was scored holistically according to a set of criteria adapted from the published criteria (Miller, 1995). In addition, the tests were scored for number of error free clauses, and number of words in error.
free clauses (Ishikawa, 1995). All scripts were double marked by a second maker. As with the primary tests, reliability in the use of these various measures was ensured by means of five stage series of measures:

i. detailed training of markers in a briefing session where assessment criteria were explained and scripts were jointly analysed and scored according to the criteria;
ii. requiring all markers to score a sample of scripts acceptably prior to their final appointment as markers;
iii. encouraging markers to discuss ambiguous cases within groups;
iv. checking to identify examples of scoring which did not match up with the criteria and the causes of misunderstanding leading to these problems;
v. briefing of second markers on likely causes of misunderstanding leading to problems in scoring prior to their second marking of the scripts.

Through this process we are confident that the scoring of the writing test was consistent across markers and hence that reliable influences can be drawn from the data.

6.1.3.2 Primary Listening and Writing Tests

(A) Instrument Design

The design of the listening test for Primary Three and the listening and writing test for Primary Five was modelled on exemplar listening tasks developed by the TOC Assessment Section of the Curriculum Development Institute (CDI) and based on the Assessment Guidelines for Key Stages 1 and 2 (Education Department, 1998). The CDI exemplar tasks are developed by a moderation committee consisting of CDI staff, serving primary school teachers and academics from local tertiary institutions. The overall consultant is Professor Lyle Bachman of the University of California. After moderation the exemplar tasks are tried out in primary schools and modifications made according to difficulties encountered. By the time they are made available as exemplar tasks therefore they are reasonably well developed already.

Components of a number of these exemplar tasks were used to create a test which would serve as the basis for the two tests. The overall test design is the same for the two levels and is closely based on the exemplar tasks with the addition of a new overall context and one new task. The tests are thematic in content built around a situational context hypothesised to be within the range of experiences of primary pupils at the two levels. The component parts of the test are distinct and designed to assess different skills within the overall construct of listening. A detailed breakdown of the skills assessed by the test is shown in the specification grid below:
Primary Listening Test: Tasks and Hypothesised Skills Assessed

<table>
<thead>
<tr>
<th>Task</th>
<th>Hypothesised skill assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1 Completing a weather chart with numerical information</td>
<td>Intensive listening for specific (numerical) information</td>
</tr>
<tr>
<td>Part 2 Selecting from six pictures, the one which represents a given weather forecast given in an extended monologue.</td>
<td>Extensive listening retaining relevant pieces of information to form a coherent summary. Matching graphical with aural information.</td>
</tr>
<tr>
<td>Part 3 Labelling a diagram with the names of participants according to descriptions of their activities they are performing given in an extended monologue.</td>
<td>Intensive listening for specific information relating to actions and activity involving identifying relevant lexis and matching it with graphical information.</td>
</tr>
<tr>
<td>Part 4 Labelling pictures according to descriptions given.</td>
<td>Intensive listening for specific descriptive information involving identifying lexis and matching it with graphical information.</td>
</tr>
<tr>
<td>Part 5 Colouring pictures according to information given.</td>
<td>Listening to information given in an extended monologue and retaining relevant pieces of information to form a coherent summary. Matching graphical with aural information.</td>
</tr>
<tr>
<td>Part 6 Selecting from four pictures, the one which best matches a given description.</td>
<td>Intensive listening for specific descriptive information involving identifying lexis and matching it with graphical information.</td>
</tr>
</tbody>
</table>

The difficulty levels of the tests for the two levels of class were differentiated by means of differences in the tape script, in the task demands, and in the weighting accorded to different sections. The test for Primary Five included a writing component which was related to the thematic context of the listening tasks and asked pupils to describe related experiences they themselves had had.

(B) Piloting

Each individual component of the primary listening and writing assessments had been piloted as part of the process of development within the CDI, TOC Assessment Section. Placing the components together into a listening test for primary three and a listening and writing test for primary five necessitated additional piloting. The test was therefore piloted on two classes each of primary three and primary five pupils in two schools, one NET and one NNEXT.

Sections of the primary test were found to be rather easy and modifications were made in the graphics and the tape script to ensure greater discrimination between pupils.

(C) Reliability

(I) Reliability of the Primary Listening Test

The time constraints of the project meant that the reliability of the revised instruments could not be estimated except in terms of internal consistency. Moreover, the internal consistency of the refined test could not be estimated prior to actual implementation. The internal consistency of the refined listening tests was estimated on each administration using Cronbach’s alpha yielding the results presented below.
Internal Consistency of the Primary Listening Tests

<table>
<thead>
<tr>
<th></th>
<th>1st Cohort</th>
<th>1st Cohort</th>
<th>2nd Cohort</th>
<th>2nd Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Admin</td>
<td>2nd Admin</td>
<td>1st Admin</td>
<td>2nd Admin</td>
<td></td>
</tr>
<tr>
<td>α</td>
<td>0.6406</td>
<td>0.5781</td>
<td>0.6933</td>
<td>0.5895</td>
</tr>
</tbody>
</table>

As shown in the table, the alpha scores range from 0.57-0.69. This suggests that the internal consistency of the test on various administrations range from marginally unacceptable to just acceptable. An alpha of less than 0.6 would be considered to indicate that the results produced by the various parts of the test are sufficiently unrelated to suggest that they are assessing a different construct.

An alternative interpretation might be that the construct of listening ability involves skills sufficiently distinct to mean that a test of the various skills would not display internal consistency. However, within the constraints of the evaluation study, there is not sufficient time to explore this interpretation. It was therefore decided to conduct further analysis of the Primary Listening test data in order to investigate the reasons for the low internal consistency of the test when administered on different occasions. The analysis will focus on the scoring of the test papers to identify ways of conducting a more fine-tuned scoring allowing for partial credit to be given for items which had been initially scored in a holistic manner i.e. Parts 2 and 6 in Table 1 above. The results of this analysis will be discussed in the Final Report. At this stage it is sufficient to note that the preliminary results indicate that extreme caution needs to be exercised in interpreting the results of the primary listening tests.

(ii) Reliability of the Primary Writing Test

The writing test for primary five was a piece of continuous writing in which pupils were invited to describe their personal experience of the thematic content of the listening test they had just completed. The writing was scored holistically according to a set of criteria adapted from the published criteria used for the Preliminary English Test (Cambridge, 1997) and from those provided in Miller (1995). In addition, the tests were scored for number of error free clauses, and number of words in error free clauses (Ishikawa, 1995). All scripts were double marked by a second marker. Reliability in the use of these various measures was ensured by means of a five-stage series of measures:

i. detailed training of markers in a briefing session where assessment criteria were explained and scripts were jointly analysed and scored according to the criteria;

ii. requiring all markers to score a sample of scripts acceptably prior to their final appointment as markers;

iii. encouraging markers to discuss ambiguous cases within peer groups and to raise queries with the evaluation team;

iv. checking to identify examples of scoring which did not match up with the criteria and the causes of misunderstanding leading to these problems;

v. briefing of second markers on likely causes of misunderstanding leading to problems in scoring prior to their second marking of the scripts.

Through this process we are confident that the scoring of the writing test was consistent across markers and hence that reliable influences can be drawn from the data.
6.2 Analysis of Language Assessment Data

This section describes the various analyses conducted on the language assessment instruments used in the study beginning with Hong Kong Attainment Tests scores. The listening and oral scores were analysed cross-sectionally, profiling results obtained at each administration of the instruments, and longitudinally, exploring NET effects over time and drawing comparisons between control and experimental groups. This was done in a multi-stage process first using repeated measures ANOVA and MANOVA for exploratory analysis, followed by ANCOVA which provides support for the initial findings of the repeated measures analysis.

In a separate strand of the analysis, oral and listening scores were analysed using paired sample t-tests. The oral scores were also submitted to regression analyses, again to identify longitudinal effects of teaching mode by factoring in the amount of exposure students had gained to a NET.

The analysis of the writing scores was conducted separately due to constraints of sample size which necessitated alternative analysis tools. The section concludes with a description of an experimental investigation using language production and accuracy measures which also explored longitudinal effects of NET exposure using fine-grained qualitative analysis of language samples.

Appendix III shows the numbers of responses to the main research instruments that are used for data analysis. Valid data for each dependent variable are counted in SPSS data files. Hong Kong Attainment Test (HKAT) scores are not included in the table for reasons described below.

6.2.1 Hong Kong Attainment Tests

Following the methodology outlined in the project proposal, HKAT results were requested from the schools of the sample student population, with the aim of triangulating them with other language assessment data in order to build up a better understanding of any possible NET effect on students' language proficiency gain. The evaluation team encountered great difficulty in obtaining HKAT data from many of the sample schools. Despite repeated requests and invitations to the schools to assist in gathering the data, responses were only received from a small number of schools. Consequently the funding body, SCOLAR was asked to approach the remaining schools to urge their co-operation, but despite this, the final data set for the HKAT results was still incomplete. This has two consequences for the interpretation of the data analysis: firstly, the final HKAT data set is not necessarily representative of the sample as a whole, and secondly when broken down into smaller groups for analysis (e.g. by school level, by teaching mode, etc) the resulting cell sizes are in some cases very small. As a result it would be unwise to generalise from results obtained from an analysis of these scores, to the population as a whole. A third caveat is that the use of HKAT results themselves as a measure of general language proficiency gain over a period of time is open to question. Although HKAT scores have been used in similar circumstances (e.g. British Council, 1989), one must exercise caution in the use the scores from a test that has been designed for one specific purpose being used for another. For these reasons, the HKAT scores are only considered as supplementary to the mainstream analysis.
In the analysis of HKAT results, paired samples t-tests were firstly carried out according to the mode of teaching and school level in order to establish any significant differences in students' pre and post test mean scores. Since the time period for the first cohort of students was two years, the teaching modes for both the first and the second years have to be considered. For the second cohort of students, only one teaching mode is considered. In addition, a regression analysis was conducted in order to see whether the amount of exposure to a NET teacher could be considered a predictor of students' HKAT results i.e. is there a NET effect on HKAT results?

6.2.1.1 Secondary Schools

(A) 1st Cohort Group

(i) Paired sample t-tests

<table>
<thead>
<tr>
<th>Teaching Mode Year 1</th>
<th>Teaching Mode Year 2</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>F1</td>
<td>64</td>
<td>59.61</td>
<td>23.56</td>
<td>56.32</td>
<td>24.97</td>
<td>0.892</td>
<td>0.024*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>F1</td>
<td>56</td>
<td>61.01</td>
<td>16.58</td>
<td>52.64</td>
<td>20.76</td>
<td>0.832</td>
<td>&lt; 0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>F1</td>
<td>30</td>
<td>74.63</td>
<td>15.39</td>
<td>62.83</td>
<td>4.63</td>
<td>0.775</td>
<td>0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>F1</td>
<td>69</td>
<td>55.81</td>
<td>18.24</td>
<td>42.41</td>
<td>21.11</td>
<td>0.773</td>
<td>&lt; 0.001*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

High Level School

<table>
<thead>
<tr>
<th>Teaching Mode Year 1</th>
<th>Teaching Mode Year 2</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>F1</td>
<td>20</td>
<td>82.25</td>
<td>9.72</td>
<td>81.70</td>
<td>8.95</td>
<td>0.67</td>
<td>0.75</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>F1</td>
<td>11</td>
<td>78.00</td>
<td>5.11</td>
<td>79.00</td>
<td>5.81</td>
<td>0.665</td>
<td>0.480</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>F1</td>
<td>20</td>
<td>83.45</td>
<td>8.78</td>
<td>78.75</td>
<td>9.25</td>
<td>0.294</td>
<td>0.065</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>F1</td>
<td>4</td>
<td>85.50</td>
<td>1.19</td>
<td>77.75</td>
<td>7.93</td>
<td>0.468</td>
<td>0.118</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Medium Level School

<table>
<thead>
<tr>
<th>Teaching Mode Year 1</th>
<th>Teaching Mode Year 2</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>F1</td>
<td>18</td>
<td>62.77</td>
<td>10.78</td>
<td>53.66</td>
<td>11.31</td>
<td>0.429</td>
<td>0.004*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>F1</td>
<td>29</td>
<td>63.93</td>
<td>14.07</td>
<td>54.96</td>
<td>12.63</td>
<td>0.721</td>
<td>&lt; 0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>F1</td>
<td>10</td>
<td>57.00</td>
<td>9.11</td>
<td>31.00</td>
<td>14.31</td>
<td>-0.082</td>
<td>0.822</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>F1</td>
<td>54</td>
<td>57.31</td>
<td>15.92</td>
<td>41.00</td>
<td>21.17</td>
<td>0.803</td>
<td>&lt; 0.001*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Low Level School

<table>
<thead>
<tr>
<th>Teaching Mode Year 1</th>
<th>Teaching Mode Year 2</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>F1</td>
<td>26</td>
<td>40.02</td>
<td>20.77</td>
<td>38.64</td>
<td>24.05</td>
<td>0.858</td>
<td>0.574</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>F1</td>
<td>16</td>
<td>44.96</td>
<td>9.27</td>
<td>30.31</td>
<td>14.42</td>
<td>0.395</td>
<td>0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>F1</td>
<td>Insufficient data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>F1</td>
<td>11</td>
<td>37.62</td>
<td>13.78</td>
<td>36.52</td>
<td>9.36</td>
<td>0.472</td>
<td>0.776</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05
In the first table, when all students’ results were analysed together (i.e. not taking into account their school level), HKAT mean scores were significantly lower in the post test than in the pre test in all four teaching mode groups. In addition, when the students’ results were analysed by school level (high, medium and low), four of the twelve groups showed significantly lower mean scores in the post test compared to the pre test. This decrease in mean HKAT mean scores could be accounted for by the small and possibly unrepresentative sample size. In addition, HKAT results are normalised each year so the validity of making comparisons on students’ language proficiency from one year to the next is questionable. These findings suggest that an alternative method of analysis should be used to capture the NET effect on HKAT scores over the two-year time period.

(ii) Regression Analysis

A regression analysis was carried out to determine whether or not the amount of exposure to a NET teacher over a period of time is a good predictor of the second administration of HKAT scores while controlling for the first administration HKAT scores. A general analysis was carried out on the three different school levels in the sample: high, medium and low.

Dependent Variable: HKAT results 2000 (hkat00)
Independent Variables: HKAT results 1999 (hkat98-99)
Students’ exposure to NETs 1998-99 (t cls1)
Students’ exposure to NETs 1999-00 (t cls2)

Statistical Model of High Level School
The F-statistic (2,27) was 5.301 with a p-value of 0.011. The adjusted R² = 0.229 and the sample size was 30.

\[
hkat00 = 43.174 + 0.01 \text{t cls1} + 4.37 \text{hkat98-99} + \varepsilon
\]
\[
(t \text{ cls1} \text{ p-value} = 0.491)
\]
\[
(hkat98-99 \text{ p-value} = 0.04*)
\]

Statistical Model of Medium Level School
The F-statistic(3,75) was 37.847 with a p-value of < 0.001. The adjusted R² = 0.586 and the sample size was 79.

\[
hkat00 = -8.493 + 0.023 \text{t cls1} + 0.051 \text{t cls2} + 8.21 \text{hkat98-99} + \varepsilon
\]
\[
(t \text{ cls1} \text{ p-value} = 0.165)
\]
\[
(t \text{ cls2} \text{ p-value} = 0.019*)
\]
\[
(hkat98-99 \text{ p-value} = p < 0.001*)
\]

Statistical Model of Low Level School
The F-statistic(3,24) was 18.987 with a p-value of < 0.001. The adjusted R² = 0.667 and the sample size was 28.

\[
hkat00 = 171.599 - 0.0737 \text{t cls1} - 0.178 \text{t cls2} + 1.144 \text{hkat98-99} + \varepsilon
\]
\[
(t \text{ cls1} \text{ p-value} = 0.209)
\]
\[
(t \text{ cls2} \text{ p-value} = 0.677)
\]
\[
(hkat98-99 \text{ p-value} < 0.001*)
\]

For the above three regression models, the adjusted R squared values showed that the percentages of variance of the raw data were explained by 22.9%, 58.6% and 66.7%, respectively, suggesting that Independent Variables predict the outcome of the Dependent
Variable more as the school level gets lower. In all three cases, the HKAT result from the previous year (1998-99) was a significant predictor (although the \( \beta \) values were low). In the above models we can see that there is no NET effect on students' HKAT results in the high and low level schools. However there is a significant effect (albeit very small) in the medium level schools \( (\beta = 0.051, p = 0.019) \). This suggests that if all other factors were held constant, the students' HKAT results in medium level schools would increase by a small amount through their increased exposure to the NET teacher.

In light of these results and of the numbers on which they are based, it was felt that further modelling would be unlikely to reveal a greater understanding of the extent to which a student's exposure to a NET teacher would be likely to impact on his or her HKAT score.

(B) 2nd Cohort Group

(i) Paired sample t-tests

<table>
<thead>
<tr>
<th>Teaching Mode</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Pre-Post test Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>F3</td>
<td>39</td>
<td>38.27</td>
<td>19.82</td>
<td>37.98</td>
<td>19.96</td>
<td>0.849</td>
<td>0.840</td>
</tr>
<tr>
<td>Local</td>
<td>F3</td>
<td>47</td>
<td>48.18</td>
<td>19.03</td>
<td>42.36</td>
<td>19.59</td>
<td>0.785</td>
<td>0.003*</td>
</tr>
<tr>
<td>Both</td>
<td>F3</td>
<td>28</td>
<td>40.57</td>
<td>19.27</td>
<td>45.03</td>
<td>18.70</td>
<td>0.887</td>
<td>0.014*</td>
</tr>
</tbody>
</table>

* significant at \( p = < 0.05 \)

High Level School

<table>
<thead>
<tr>
<th>Teaching Mode</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>F3</td>
<td>Insufficient data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>F3</td>
<td>Insufficient data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td>F3</td>
<td>14</td>
<td>31.07</td>
<td>15.94</td>
<td>35.21</td>
<td>16.76</td>
<td>0.861</td>
<td>0.097</td>
</tr>
</tbody>
</table>

* significant at \( p = < 0.05 \)

Medium Level School

<table>
<thead>
<tr>
<th>Teaching Mode</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>F3</td>
<td>22</td>
<td>55.63</td>
<td>13.80</td>
<td>56.50</td>
<td>14.46</td>
<td>0.662</td>
<td>0.731</td>
</tr>
<tr>
<td>Local</td>
<td>F3</td>
<td>39</td>
<td>48.00</td>
<td>19.21</td>
<td>41.69</td>
<td>19.66</td>
<td>0.782</td>
<td>0.004*</td>
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<tr>
<td>Both</td>
<td>F3</td>
<td>14</td>
<td>50.07</td>
<td>54.85</td>
<td>54.85</td>
<td>15.43</td>
<td>0.841</td>
<td>0.088</td>
</tr>
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</table>

* significant at \( p = < 0.05 \)

Low Level School

<table>
<thead>
<tr>
<th>Teaching Mode</th>
<th>Group</th>
<th>No. of Cases</th>
<th>Pre-test Mean</th>
<th>S.D.</th>
<th>Post-test Mean</th>
<th>S.D.</th>
<th>Correlation</th>
<th>Significance (Mean Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>F3</td>
<td>37</td>
<td>27.94</td>
<td>15.09</td>
<td>26.97</td>
<td>13.63</td>
<td>0.733</td>
<td>0.580</td>
</tr>
<tr>
<td>Local</td>
<td>F3</td>
<td>8</td>
<td>49.10</td>
<td>19.38</td>
<td>45.63</td>
<td>20.17</td>
<td>0.809</td>
<td>0.450</td>
</tr>
<tr>
<td>Both</td>
<td>F3</td>
<td>Insufficient data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant at \( p = < 0.05 \)

In the first table, when all students' results were analysed together (i.e. not taking into account their school level), those taught by local teachers had significantly lower HKAT mean scores in
the post test than in the pre test. In another case, those taught by a combination of NET and local teacher had significantly higher HKAT mean scores in the post test than in the pre test. When analysed by school level, for medium level schools, students taught by local teachers significantly lower mean scores in the post test than in the pre test.

(ii) Regression Analysis

The same procedure that was carried out on the HKAT results of secondary students in the first cohort was also conducted on those in the second cohort. Here too, group sizes were small and in many cases there was insufficient data for such an analysis. Results in general were similar to those of the first cohort, with β values of the students’ exposure to NET teacher being low and generally not significant. Consequently, all of these results will not be reported, but below are two that are of some interest. The following variables were established:

- **Dependent Variable:** HKAT results 2000 (*hkat00*)
- **Independent Variables:** HKAT results 1999 (*hkat-99*)
  - Students’ exposure to NETs 1999-00 (*t.cls*)

The results are shown below.

**F3**

**Statistical Model of Medium Level School**
The F-statistic(2,72) was 65.867 with a p-value of < 0.001. The adjusted R² = 0.637 and the sample size was 75.

\[ hkat00 = 5.078 - 0.470 \cdot t.cls + 76.3 \cdot hkat-99 + \varepsilon \]

(*t.cls p < 0.001*)

(*hkat-99 p < 0.001*)

**Statistical Model of Low Level School**
The F-statistic(2,42) was 38.923 with a p-value of < 0.001. The adjusted R² = 0.633 and the sample size was 45.

\[ hkat00 = 10.991 - 0.015 \cdot t.cls + 7.06 \cdot hkat-99 + \varepsilon \]

(*t.cls p=0.397*)

(*hkat-99 p < 0.001*)

Again, the adjusted R² shows that a reasonable percentage of the variance can be explained (63.7% and 63.3% respectively). The β values of the students’ exposure to the NET teacher are 0.470 (p < 0.001*) and -0.015 (p=0.397), respectively. In these models, when other factors were held constant, the students’ HKAT results would increase by 0.47 through an additional one-hour exposure to the NET teacher for medium level schools.

As in the analysis of the HKAT results of the first cohort, it was felt that further modelling would not reveal a greater understanding of the extent to which a student’s exposure to a NET teacher would be likely to impact on his or her HKAT score, since there were very few significant effects. For this reason, together with the small and possibly unrepresentative sample sizes, the modelling of the HKAT results was stopped at this point.
6.2.2 Cross-sectional Analysis of Language Assessment Scores

6.2.2.1 Objective of Analysis

The primary aim of the analysis of the language assessment data was to identify whether or not the teaching mode had any general effect on English language proficiency measured between two administrations of the assessment instruments. However, before carrying out this longitudinal analysis, cross-sectional analyses at 1st and 2nd administration were carried out to identify any pre-existing patterns or tendencies.

In order to do this, firstly, the components of the statistical model (i.e. oral, listening and writing assessments) were obtained from the Primary and Secondary students in the sample and these scores were used as dependent variables. Secondly, the type of teaching mode, the form level and the school level of each individual were also recorded and these data were used as the independent variables. At this stage of the analysis, the aim was to establish whether there was any significant teaching mode effect on the coordinated data of oral, listening and writing scores whilst at the same time controlling the other independent variables.

6.2.2.2 Methodology

(A) Secondary Schools

A three-way multiple analysis of variance (3-way MANOVA) method was used for the analysis since there were three factors involved (i.e. teaching mode, form level and school level) and three dependent variables. However, since the sample size for the writing scores was smaller and the r-value was lower than that of the other variables, the writing scores were analysed separately using a three-way ANOVA. Findings from these analyses are shown in the table below.

<table>
<thead>
<tr>
<th>Results of Pearson Correlation</th>
<th>Oral &amp; Listening</th>
<th>Oral &amp; Writing</th>
<th>Listening &amp; Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st cohort 1st Administration</td>
<td>r-value</td>
<td>Sample size</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.60</td>
<td>1265</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.32</td>
<td>358</td>
<td>360</td>
</tr>
<tr>
<td>2nd cohort 1st Administration</td>
<td>r-value</td>
<td>Sample size</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.61</td>
<td>369</td>
<td>411</td>
</tr>
<tr>
<td></td>
<td>0.38</td>
<td>752</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>0.25</td>
<td>618</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>0.25</td>
<td>117</td>
<td></td>
</tr>
</tbody>
</table>

The r-value is the linear correlation between 2 dependent variables. These values range from 0 to ±1 and denote the weakest and the strongest relationships.

(B) Primary Schools

In the analysis, the school level effect was not considered since the primary school sample was not representative of the population. Therefore a two-way multiple analysis of variance (2-way

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2 Three modes of teaching are identified in this report: NET (pupils taught only by NET teachers); Local (pupils taught only by local teachers); and Both (pupils taught by a combination of NETs and Local teachers).
MANOVA) was conducted to determine whether there was any significant teaching mode effect on the coordinated oral and listening assessment scores, whilst controlling for the form level factor. If statistical evidence was detected in the MANOVA analysis, a follow-up post-hoc one-way analysis of variance (ANOVA) was conducted to determine the exact teaching mode effect on the coordinated oral and listening assessment scores. Again, since the sample size for the writing scores was smaller and the r-value did not produce such high correlations with the other variables, the writing scores were analysed independently using a three-way ANOVA. The results of this analysis are shown in the table below.

### Results of Pearson Correlation

<table>
<thead>
<tr>
<th>Administration</th>
<th>r-value</th>
<th>Sample size</th>
<th>r-value</th>
<th>Sample size</th>
<th>r-value</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st cohort 1st Administration</td>
<td>0.46</td>
<td>366</td>
<td>0.48</td>
<td>410</td>
<td>0.48</td>
<td>219</td>
</tr>
<tr>
<td>1st cohort 2nd Administration</td>
<td>0.48</td>
<td>366</td>
<td>0.33</td>
<td>109</td>
<td>0.44</td>
<td>109</td>
</tr>
<tr>
<td>2nd cohort 1st Administration</td>
<td>0.39</td>
<td>410</td>
<td>0.44</td>
<td>109</td>
<td>0.34</td>
<td>109</td>
</tr>
<tr>
<td>2nd cohort 2nd Administration</td>
<td>0.43</td>
<td>201</td>
<td>0.43</td>
<td>41</td>
<td>0.41</td>
<td>63</td>
</tr>
</tbody>
</table>

The r-value represents the linear correlation between 2 dependent variables. These values range from 0 to ±1 and denote the weakest and the strongest relationships.

### 6.2.2.3 Analysis of Coordinated Oral and Listening Scores

#### (A) Assumptions

**Assumption tests statistics**
The p-value of Box's test of level of covariance matrices evaluates whether the variances and covariance among the dependent variables are the same for all levels of factor. This assumption is violated when the value is less than 0.05, but in reality this assumption is rarely satisfied. Spread versus level plots illustrate whether any relationships exist between the group means and variances. Where a strong pattern in the plot does exist then the analysis is not reliable. Further, in order to satisfy the assumption of normality of dependent variable values, the sample size among the combination of groups should be at least fifteen.

**Analysis test statistics**
Wilks' Lambda test was used to find out whether independent or interaction factors have any significant effect on the mean values of the coordinated oral and listening assessment scores. The multivariate Eta Squared value is a corresponding multivariate effect size index, ranging from 0 to 1; a value of 1 indicating the strongest possible relationship between the independent or interaction factor with the dependent variables. Where independent or interaction factors were found to be significant in the MANOVA, then a follow-up ANOVA was carried out to test the teaching mode effect. It should be noted that this follow-up ANOVA is different from a uni-variate ANOVA because the former is performed on dependent variable values that are available in the multivariate analysis.
Test statistics for follow-up ANOVA

The p-value of Levene's Test of level of error variances evaluates whether the variances among the dependent variables are the same for all levels of factor. A value of less than 0.05 indicates that this assumption is violated. In reality however, this assumption is rarely satisfied.

Type I error level adjustment (alpha level)

For the 1st cohort 2nd administration analyses, there are four levels of teaching mode. Therefore the multivariate tests use an alpha level of 0.05, and the follow-up ANOVA tests use an alpha level of 0.05 divided by the total number of ANOVAs performed. Multiple comparison tests within a follow up ANOVA use an alpha level of ANOVA divided by the number of distinct comparisons.

For the 1st cohort 1st administration and 2nd cohort administration analyses, there are 3 levels of teaching mode. Here, multivariate tests use an alpha level of 0.05, and the follow-up ANOVA tests use an alpha level of 0.05. For multiple comparisons, when the follow-up ANOVA effect is significant, an alpha level of 0.05 divided by the number of ANOVAs is used. When the follow-up ANOVA is not significant, an alpha level of 0.05 is used.

(B) Testing the Assumptions

Statistics testing the assumptions of 3-way MANOVA analysis for oral and listening scores are listed in the table below together with the results for the secondary and primary data.

<table>
<thead>
<tr>
<th>Assumption tests statistic table of oral and listening assessment</th>
<th>p-value of Box test of level of covariance matrices</th>
<th>Pattern in Spread vs level plot</th>
<th>No. of samples with sizes less than fifteen</th>
<th>Reliability of the analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st cohort 1st administration</td>
<td>&lt; 0.001</td>
<td>No</td>
<td>None out of 27</td>
<td>Moderate</td>
</tr>
<tr>
<td>1st cohort 2nd administration</td>
<td>&lt; 0.001</td>
<td>No</td>
<td>13 out of 30</td>
<td>Moderate</td>
</tr>
<tr>
<td>2nd cohort 1st administration</td>
<td>&lt; 0.001</td>
<td>No</td>
<td>None out of 16</td>
<td>Moderate</td>
</tr>
<tr>
<td>2nd cohort 2nd administration</td>
<td>&lt; 0.001</td>
<td>Weak negative relationship</td>
<td>One out of 15</td>
<td>poor</td>
</tr>
<tr>
<td>Primary pupils</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st cohort 1st administration</td>
<td>&lt; 0.001</td>
<td>No</td>
<td>None out of 6</td>
<td>Moderate</td>
</tr>
<tr>
<td>1st cohort 2nd administration</td>
<td>0.082</td>
<td>No</td>
<td>2 out of 7</td>
<td>Good</td>
</tr>
<tr>
<td>2nd cohort 1st administration</td>
<td>0.003</td>
<td>Too few data</td>
<td>None out of 4</td>
<td>Moderate</td>
</tr>
<tr>
<td>2nd cohort 2nd administration</td>
<td>0.01</td>
<td>Too few data</td>
<td>2 out of 6</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Results in the above table suggest that the reliability of the analyses were moderate to good, except for the analysis in the 2nd cohort 2nd secondary administration, and therefore the result of this analysis is not reported.
(C) Findings

SPSS outputs of all the analyses can be obtained upon request from the research team (see footnote on page 5 above).

(i) Secondary Schools

1st cohort 1st Administration

*Three-way MANOVA on Oral & Listening Assessment*

In the table for multivariate tests, there is a significant interaction effect of form level, school level and teaching mode with a Wilks' Lambda p-value of less than 0.001, and an F-statistic of 6.8 (with df1=16 and df2=2474). Finally, the corresponding Eta Squared value was 0.042. These results indicate that a follow-up ANOVA of the interaction effect should be conducted.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept Wilks' Lambda</td>
<td>0.06</td>
<td>10118.0</td>
<td>2</td>
<td>1237</td>
<td>0</td>
<td>0.942</td>
</tr>
<tr>
<td>FORM1 Wilks' Lambda</td>
<td>0.86</td>
<td>12.8</td>
<td>4</td>
<td>2474</td>
<td>0</td>
<td>0.02</td>
</tr>
<tr>
<td>SCH_LV Wilks' Lambda</td>
<td>0.56</td>
<td>206.2</td>
<td>4</td>
<td>2474</td>
<td>0</td>
<td>0.25</td>
</tr>
<tr>
<td>T98_99 Wilks' Lambda</td>
<td>0.99</td>
<td>3.1</td>
<td>4</td>
<td>2474</td>
<td>0.015</td>
<td>0.005</td>
</tr>
<tr>
<td>FORM1* SCH_LV Wilks' Lambda</td>
<td>0.98</td>
<td>3.0</td>
<td>8</td>
<td>2474</td>
<td>0.003</td>
<td>0.01</td>
</tr>
<tr>
<td>FORM1* T98_99 Wilks' Lambda</td>
<td>0.97</td>
<td>5.6</td>
<td>8</td>
<td>2474</td>
<td>0</td>
<td>0.018</td>
</tr>
<tr>
<td>SCH_LV* T98_99 Wilks' Lambda</td>
<td>0.88</td>
<td>20.9</td>
<td>8</td>
<td>2474</td>
<td>0</td>
<td>0.063</td>
</tr>
<tr>
<td>FORM1* SCH_LV* T98_99 Wilks' Lambda</td>
<td>0.92</td>
<td>6.8</td>
<td>16</td>
<td>2474</td>
<td>0</td>
<td>0.042</td>
</tr>
</tbody>
</table>

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.

*Follow-up ANOVA on Oral & Listening Assessment*

Multiple comparisons of the follow-up ANOVAs were tested at an alpha level of 0.0028. The multiple comparisons of the following combination of factor levels were tested at an alpha level of 0.05: F4 class in a High ability school; F4 class in a Low ability school; and F3 class in a Low ability school.

In the analysis of the oral scores, there were 12 out of 27 multiple comparisons that showed a significant teaching mode effect (Please refer to the table below).
In the analysis of the listening scores, there were 10 out of 27 multiple comparisons that showed a significant teaching mode effect (please refer to the table below).

<table>
<thead>
<tr>
<th>Form level</th>
<th>School level</th>
<th>ANOVA p-value</th>
<th>Significant comparisons</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form 1</td>
<td>Medium</td>
<td>0.001</td>
<td>Both &gt; Local</td>
<td>0.015</td>
</tr>
<tr>
<td>Form 1</td>
<td>Low</td>
<td>0.001</td>
<td>Both &gt; Local</td>
<td>0.002</td>
</tr>
<tr>
<td>Form 3</td>
<td>High</td>
<td>0.001</td>
<td>NET &gt; Both</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 3</td>
<td>High</td>
<td>0.001</td>
<td>Local &gt; Both</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 3</td>
<td>Medium</td>
<td>&lt; 0.001</td>
<td>Both &gt; Local</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 3</td>
<td>Medium</td>
<td>&lt; 0.001</td>
<td>NET &gt; Local</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 3</td>
<td>low</td>
<td>0.001</td>
<td>Both &gt; Local</td>
<td>0.003</td>
</tr>
<tr>
<td>Form 4</td>
<td>High</td>
<td>&lt; 0.001</td>
<td>NET &gt; Both</td>
<td>0.001</td>
</tr>
<tr>
<td>Form 4</td>
<td>High</td>
<td>&lt; 0.001</td>
<td>Local &gt; Both</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 4</td>
<td>Medium</td>
<td>0.001</td>
<td>Both &gt; Local</td>
<td>0.001</td>
</tr>
<tr>
<td>Form 4</td>
<td>Low</td>
<td>&lt; 0.001</td>
<td>NET &gt; Both</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 4</td>
<td>low</td>
<td>&lt; 0.001</td>
<td>NET &gt; Local</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

**Discussion**

Students at F1 in medium and low ability schools, perform better when they have had the opportunity of being taught by both the local teacher and the NET. In contrast, in high ability schools F1 students taught by a combination of NET and local perform significantly more poorly than those taught by either a NET or a local. This same pattern is replicated for High level F3 groups, students taught by Both or Local perform relatively more poorly. For F4, however, the pattern is reversed, students taught by either a NET or a local perform relatively better than those taught by a combination of both. These findings do not indicate the cause of any such relationships, since they are baseline, cross-sectional data.

The first administration of the language assessment instruments was conducted in March 1999. The first cohort NETs had been in place since the previous September. In this period of six months, during which the oral, listening and writing tests were being developed and piloted the sampled groups would have been influenced by their English teacher, whether he or she was a NET or a local teacher, or whether that class had been taught by both NETs and local teachers, perhaps in some form of team teaching or spit class teaching. This influence may be very small, but it is likely to be represented in the data gathered in the first administration of the language assessments to the first cohort groups.

While the influence of the students' English teacher (whether a NET, a local or Both) is likely to account for a certain proportion of the variation in scores between the different groups.
represented in the findings, the scores of the children assessed at this time will have been influenced by a host of other factors and it is not possible to identify any causal factors for the differences found. These are baseline data, gathered in order to identify and understand the pre-existing patterns or tendencies in the data and provide a basis for making longitudinal comparisons based on the second administration scores obtained from the same students.

1st cohort 2nd Administration

Three-way MANOVA on Oral & Listening Assessment
In the table for multivariate tests, there is a significant interaction effect of school level & teaching mode with a Wilks' Lambda p-value equal to 0.003, and Eta Squared value of 0.27. Therefore a 2-way ANOVA was performed.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Intercept</th>
<th>FORM2</th>
<th>SCH_LV</th>
<th>GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wilks' Lambda</td>
<td>Wilks' Lambda</td>
<td>Wilks' Lambda</td>
<td>Wilks' Lambda</td>
</tr>
<tr>
<td>Value</td>
<td>0.1</td>
<td>0.9</td>
<td>0.7</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>1653.8</td>
<td>11.3</td>
<td>48.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Hypothesis df</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Error df</td>
<td>533</td>
<td>1066</td>
<td>1066</td>
<td>1066</td>
</tr>
<tr>
<td>Sig.</td>
<td>0</td>
<td>0</td>
<td>0.809</td>
<td>0.003</td>
</tr>
<tr>
<td>Eta Squared</td>
<td>0.861</td>
<td>0.041</td>
<td>0.154</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Two-way MANOVA on Oral & Listening Assessment
Assumption: The p-value of Box's test of level of covariance matrices is less than 0.001. The Spread versus level plots showed no clear pattern. The sample size varied among the group combinations and was less than fifteen for a few of them. The reliability of this analysis was moderate. A follow-up ANOVA of the interaction effect was therefore conducted.

Follow-up ANOVA on Oral & Listening Assessment
There were 3 levels of school, 2 dependent variables and 4 levels of teaching mode. Multiple comparisons were tested at an alpha level of 0.0014.

There were 36 multiple comparisons, and 2 of them were significant. These are shown in the table below. The most pertinent finding is that on average, students who had been taught by
NETs in the two-school-year period from September 1998 to May 2000 had significantly higher listening scores than those taught by local English teachers in the same period.

The other significant comparison shows that students who had been taught by local teachers and NETs in successive school years (1998-1999 & 1999-2000) had significantly different oral assessment scores. Students who had been taught by a local teacher in the first year, and a NET in the second, had significantly higher scores than those taught by a NET in the first year and a local in the succeeding year.

<table>
<thead>
<tr>
<th>Language assessment</th>
<th>School level</th>
<th>ANOVA p-value</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening scores</td>
<td>low level school</td>
<td>&lt; 0.001</td>
<td>NET to NET &gt; Local to Local</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Oral scores</td>
<td>high level school</td>
<td>&lt; 0.001</td>
<td>Local to NET &gt; NET to Local</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

2nd cohort 1st Administration

*Three-way MANOVA on Oral & Listening Assessment*

In the table for multivariate tests, there is a significant interaction effect of form level, school level and teaching mode with a Wilks' Lambda p-value of less than 0.001, F-statistic of 12.6 (df1=4 and df2=1380) and Eta Squared value of 0.035. These results indicate that a follow-up ANOVA of the interaction effect should be conducted.

**Multivariate tests**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>Wilks' Lambda</td>
<td>0.1</td>
<td>5964.3</td>
<td>2</td>
<td>690</td>
<td>0</td>
</tr>
<tr>
<td>FORM</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>6.7</td>
<td>2</td>
<td>690</td>
<td>0.001</td>
</tr>
<tr>
<td>SCH_LV</td>
<td>Wilks' Lambda</td>
<td>0.8</td>
<td>50.6</td>
<td>4</td>
<td>1380</td>
<td>0</td>
</tr>
<tr>
<td>TEACH</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>4.1</td>
<td>4</td>
<td>1380</td>
<td>0.003</td>
</tr>
<tr>
<td>FORM * SCH_LV</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>4.4</td>
<td>4</td>
<td>1380</td>
<td>0.001</td>
</tr>
<tr>
<td>FORM * TEACH</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>8.4</td>
<td>4</td>
<td>1380</td>
<td>0</td>
</tr>
<tr>
<td>SCH_LV * TEACH</td>
<td>Wilks' Lambda</td>
<td>0.9</td>
<td>9.6</td>
<td>8</td>
<td>1380</td>
<td>0</td>
</tr>
<tr>
<td>FORM * SCH_LV * TEACH</td>
<td>Wilks' Lambda</td>
<td>0.9</td>
<td>12.6</td>
<td>4</td>
<td>1380</td>
<td>0</td>
</tr>
</tbody>
</table>

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.
c. Design: Intercept+FORM+SCH_LV+TEACH+FORM*SCH_LV+TEACH+FORM*SCH_LV*TEACH

**Follow-up ANOVA on Oral & listening Assessment**

There were three levels of school, two levels of form, and 2 dependent variables. When the ANOVA was significant, each multiple comparison used an alpha level of 0.0042, and when
the ANOVA was not significant, each multiple comparison used an alpha level of 0.05. Five of the 28 multiple comparisons tested were significant. Referring to the column headed Significant Comparison in the table below, we can see that on average, students taught by certain types of teacher had higher scores than those taught by other types. For example, F1 students in High ability schools who were being taught by a NET scored significantly higher in their listening assessment than those taught in split class, oral only, or team teaching mode by both local teachers and NETs.

<table>
<thead>
<tr>
<th>Form level</th>
<th>School level</th>
<th>Language scores</th>
<th>ANOVA p-value</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form 1</td>
<td>High</td>
<td>Listening scores</td>
<td>&lt; 0.001</td>
<td>NET &gt; Both</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 3</td>
<td>High</td>
<td>Listening scores</td>
<td>&lt; 0.001</td>
<td>Local &gt; Both</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.019</td>
<td>Local &gt; Both</td>
<td>0.019</td>
</tr>
<tr>
<td>Form 1</td>
<td>Low</td>
<td>Oral scores</td>
<td>&lt; 0.001</td>
<td>Both &gt; Local</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Form 3</td>
<td>High</td>
<td>Oral scores</td>
<td>0.002</td>
<td>Local &gt; Both</td>
<td>0.002</td>
</tr>
</tbody>
</table>

**Discussion**

The findings in the table above are baseline data gathered at a point in time early in these students experience with a ‘brand new NET’ (i.e. one recruited from September 1999 (see Section 5.3.1.3 above)).

For the second cohort investigation, the first administration of the language assessment instruments was conducted in November 1999. The second cohort NETs had been in place since the previous September. In this period of three months, the sampled groups would have been influenced by their English teacher, whether he or she was a NET or a local teacher, or whether that class had been taught by both NETs and local teachers. While this influence is likely to be represented in the data gathered in the first administration of the language assessments to the first cohort groups, and therefore represented in the table above, it is not likely to be large given the short time span involved. Thus, the influence of the students’ English teacher may account for a certain proportion of the variation in scores between the different groups represented in the findings, but the scores will have been influenced by a host of other factors and it is not possible to identify any causal factors to account for the differences found.

This baseline information was gathered in order to identify and understand the pre-existing patterns or tendencies in the data and provide a basis for making longitudinal comparisons based on the second administration scores obtained from the same students.

**2nd cohort 2nd Administration**

**Three-way MANOVA on Oral & Listening Assessment**

In the table for multivariate tests, there is a significant interaction effect of both form level and teaching mode and of school level and teaching mode. Both have Wilks’ Lambda p-values of
less than 0.001, and Eta Squared values of 0.3 and 0.33, respectively. Therefore two 2-way MANOVAs were then conducted.

### Multivariate tests

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept Wils' Lambda</td>
<td>0.1</td>
<td>5360.0</td>
<td>2</td>
<td>576</td>
<td>.000</td>
<td>.949</td>
</tr>
<tr>
<td>FORM Wils' Lambda</td>
<td>1.0</td>
<td>7.2</td>
<td>2</td>
<td>576</td>
<td>.001</td>
<td>.024</td>
</tr>
<tr>
<td>SCH_LV Wils' Lambda</td>
<td>0.8</td>
<td>31.9</td>
<td>4</td>
<td>1152</td>
<td>.000</td>
<td>.100</td>
</tr>
<tr>
<td>TEACH Wils' Lambda</td>
<td>0.9</td>
<td>11.4</td>
<td>4</td>
<td>1152</td>
<td>.000</td>
<td>.038</td>
</tr>
<tr>
<td>FORM* SCH_LV Wils' Lambda</td>
<td>1.0</td>
<td>3.4</td>
<td>4</td>
<td>1152</td>
<td>.010</td>
<td>.012</td>
</tr>
<tr>
<td>FORM* TEACH Wils' Lambda</td>
<td>0.9</td>
<td>8.9</td>
<td>4</td>
<td>1152</td>
<td>.000</td>
<td>.030</td>
</tr>
<tr>
<td>SCH_LV* TEACH Wils' Lambda</td>
<td>0.9</td>
<td>4.9</td>
<td>8</td>
<td>1152</td>
<td>.000</td>
<td>.033</td>
</tr>
<tr>
<td>FORM* SCH_LV* TEACH Wils' Lambda</td>
<td>1.0</td>
<td>2.3</td>
<td>2</td>
<td>576</td>
<td>.100</td>
<td>.008</td>
</tr>
</tbody>
</table>

* Exact statistic
* The statistic is an upper bound on F that yields a lower bound on the significance level.
* Design: Intercept+FORM+SCH_LV+TEACH+FORM* SCH_LV+FORM* TEACH+SCH_LV* TEACH+FORM* SCH_LV* TEACH

#### Two-way MANOVA on Oral & Listening Assessment

### Checking Assumptions

The Spread versus level plots for the 2-way MANOVA of school level and teaching mode showed a strong pattern. There was a similar finding for the 2-way MANOVA of form level and teaching mode. These results suggest the statistical results were unreliable and therefore they are not reported here.

#### (II) Primary Schools

**1st cohort 1st Administration**

#### Two-way MANOVA on Oral & Listening Assessment

In the table of multivariate tests, there is a significant interaction effect of form level, school level and teaching mode with Wilks’ Lambda p-value of less than 0.001, F-statistic of 6.9 (df1=4 and df2=718) and Eta Squared value of 0.037. These results suggest that a follow-up ANOVA of the interaction effect should be conducted.
Multivariate tests

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>Wilks' Lambda</td>
<td>0.1</td>
<td>1859.1</td>
<td>2</td>
<td>359</td>
<td>.000</td>
</tr>
<tr>
<td>FORM1</td>
<td>Wilks' Lambda</td>
<td>0.9</td>
<td>20.6</td>
<td>2</td>
<td>359</td>
<td>.000</td>
</tr>
<tr>
<td>T98_99</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>3.3</td>
<td>4</td>
<td>718</td>
<td>.012</td>
</tr>
<tr>
<td>FORM1* T98_99</td>
<td>Wilks' Lambda</td>
<td>0.9</td>
<td>6.9</td>
<td>4</td>
<td>718</td>
<td>.000</td>
</tr>
</tbody>
</table>

- **Exact statistic**
- The statistic is an upper bound on F that yields a lower bound on the significance level.
- **Design:** Intercept+FORM1+T98_99+FORM1*T98_99

**Follow-up ANOVA on Oral & Listening Assessment**

There were two levels of form, two dependent variables, and 3 levels of teaching mode. When the ANOVA was significant, multiple comparisons used an alpha of 0.0125, and when ANOVA was not significant, multiple comparisons used an alpha level of 0.05.

Four out of 12 multiple comparisons were significant.

<table>
<thead>
<tr>
<th>Form level</th>
<th>Language scores</th>
<th>ANOVA p-value</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary three</td>
<td>Oral scores</td>
<td>0.034</td>
<td>Both &gt; Local</td>
<td>0.041</td>
</tr>
<tr>
<td>Primary three</td>
<td>Listening scores</td>
<td>0.039</td>
<td>Local &gt; NET</td>
<td>0.047</td>
</tr>
<tr>
<td>Primary five</td>
<td>Listening scores</td>
<td>0.002</td>
<td>NET &gt; Local</td>
<td>0.002</td>
</tr>
<tr>
<td>Primary five</td>
<td>Listening scores</td>
<td>0.002</td>
<td>NET &gt; Both</td>
<td>0.002</td>
</tr>
</tbody>
</table>

**Discussion**

Similar considerations to those discussed in section 6.2.2.3 C (i) above in relation to the secondary data, apply to these primary school results. The findings provide baseline information and were gathered in order to identify and understand the pre-existing patterns or tendencies in the data and provide a basis for making longitudinal comparisons based on the second administration scores obtained from the same students. Nevertheless, the assessments were administered after six months of the different teaching modes in question; hence the influence of the teacher is likely to be present in the data.

The findings show interesting, but predictable differences between P3 and P5 students. In the lower levels of form, pupils benefit more from the NET when he or she teaches only a proportion of their English lessons. Pupils' oral and listening scores, on average were significantly higher when they were taught by both the NET and a local teacher. At P5, however, there is evidence to suggest that pupils could benefit from being taught by the NET for all their English lessons. This was reflected in the significantly higher listening scores of pupils in NET classes when compared to those of pupils taught by locals or a combination of NET and local.
1st cohort 2nd Administration

**Two-way MANOVA on Oral & Listening Assessment**
In the table for multivariate tests, the p-value of teaching mode effect is less than 0.001, with Eta Squared value equals to 0.57. These results suggest a follow-up MANOVA of teaching mode effect was then conducted.

### Multivariate tests

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>Wilks' Lambda</td>
<td>0.1</td>
<td>3594.1</td>
<td>2</td>
<td>402</td>
<td>.000</td>
</tr>
<tr>
<td>GROUP1</td>
<td>Wilks' Lambda</td>
<td>0.9</td>
<td>8.1</td>
<td>6</td>
<td>804</td>
<td>.000</td>
</tr>
<tr>
<td>FORM2</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>9.4</td>
<td>2</td>
<td>402</td>
<td>.000</td>
</tr>
<tr>
<td>GROUP1 * FORM2</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>2.1</td>
<td>4</td>
<td>804</td>
<td>.077</td>
</tr>
</tbody>
</table>

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.
c. Design: Intercept+GROUP1+FORM2+GROUP1 * FORM2

### Follow-up ANOVA on oral and listening scores
There were two dependent variables and four levels of teaching mode. Multiple comparison used an alpha level of 0.0042. Five of the 12 multiple comparisons were significant. These are shown in the table below.

<table>
<thead>
<tr>
<th>Language assessment</th>
<th>ANOVA p-value</th>
<th>Significant comparisons</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral scores</td>
<td>&lt; 0.001</td>
<td>Local to NET &gt; NET to NET</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Oral scores</td>
<td>&lt; 0.001</td>
<td>Local to Local &gt; NET to NET</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Listening scores</td>
<td>&lt; 0.001</td>
<td>Local to NET &gt; NET to NET</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Listening scores</td>
<td>&lt; 0.001</td>
<td>NET to Local &gt; Local to Local</td>
<td>0.002</td>
</tr>
<tr>
<td>Listening scores</td>
<td>&lt; 0.001</td>
<td>Local to NET &gt; Local to Local</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

On average, pupils taught exclusively NETs or exclusively by local teachers for the two year period obtained lower scores on the oral and listening assessments than those taught by local teachers or by a teaching combination (team teaching or split class teaching) of local teachers and NETs.

**Discussion**
These results do not distinguish between pupils in different class levels or in schools with particular ability levels. They apply to all primary schools in the sample. They present a cross-sectional profile of differences at the end of a two-year period of treatment. The general indication is that, in the primary schools, a concentration of NET teaching over two years does not necessarily lead to measurable differences in oral ability. When pupils taught by NETs for two years, are compared with pupils taught by locals for two years, or by a local for the first year and a NET for the second year, their oral and listening scores are significantly lower. On the other hand, those pupils with the opportunity of having one year of NET teaching in the
two-year period, when in the other year they were taught by a local teacher, gained significantly higher listening scores than pupils taught exclusively by a local English teacher for the two-year period.

2nd cohort 1st Administration

**Two-way MANOVA on Oral & Listening Assessment**
In the table for multivariate tests, there is a significant teaching mode effect with Wilks' Lambda p-value of less than 0.001, F-statistic of 5.56 (df1=4 and df2=392) and Eta Squared value of 0.054. Therefore a follow-up ANOVA of the teaching mode effect should be conducted.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Intercept</th>
<th>FORM</th>
<th>T99_00</th>
<th>FORM* T99_00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilks' Lambda</td>
<td>0.1</td>
<td>0.9</td>
<td>0.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1262.7</td>
<td>8.8</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Error df</td>
<td>196</td>
<td>196</td>
<td>392</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Eta Squared</td>
<td>.928</td>
<td>.083</td>
<td>.054</td>
<td></td>
</tr>
</tbody>
</table>

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.
c. Design: Intercept+FORM+T99_00+FORM* T99_00

**One-way MANOVA on Oral & Listening Assessment**
The p-value of Box's test of level of covariance matrices is less than 0.001. The Spread versus level plots show that variances for different means did not differ greatly. The sample size varied among groups and was larger than fifteen for all of them. The reliability of this analysis was less than moderate.

**Follow-up ANOVA on Oral & Listening Assessment**
There were 2 dependent variables and 3 levels of teaching mode. When ANOVA was significant, multiple comparisons used an alpha level of 0.025. When ANOVA was not significant, multiple comparisons used an alpha level of 0.05.

Two out of 6 multiple comparisons were significant. These are shown in the table below.

<table>
<thead>
<tr>
<th>Language assessment</th>
<th>ANOVA p-value</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening scores</td>
<td>&lt;0.001</td>
<td>NET &gt; Both</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Listening scores</td>
<td>&lt;0.001</td>
<td>NET &gt; Local</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

**Discussion**

Similar considerations apply to the remarks made above in relation to the second cohort, first administration results for secondary (see Section 6.2.2.3 C (i)). The results provide baseline information and were gathered to provide an understanding of trends in the data, and to provide
a basis upon which to draw inferences from the longitudinal data provided in the second administration scores.

2nd cohort 2nd Administration

Two-way MANOVA on Oral & Listening Assessment
In the table for multivariate tests, there is a significant teaching mode effect with Wilks' Lambda p-value equal to 0.05 and Eta Squared value of 0.049. Therefore a follow-up ANOVA of the teaching mode effect was then conducted.

Multivariate tests

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>Wilks' Lambda</td>
<td>0.1</td>
<td>1389.1</td>
<td>2</td>
<td>0.000</td>
<td>.928</td>
</tr>
<tr>
<td>T99_00</td>
<td>Wilks' Lambda</td>
<td>0.9</td>
<td>3.5</td>
<td>4</td>
<td>0.009</td>
<td>.031</td>
</tr>
<tr>
<td>FORM</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td>5.5</td>
<td>2</td>
<td>0.005</td>
<td>.049</td>
</tr>
<tr>
<td>T99_00*FORM</td>
<td>Wilks' Lambda</td>
<td>1.0</td>
<td></td>
<td>214.5</td>
<td>.003</td>
<td>.049</td>
</tr>
</tbody>
</table>

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.
c. Design: Intercept+T99_00+FORM+T99_00*FORM

One-way MANOVA on Oral & Listening Assessment
Assumption: The p-value of Box's test of level of covariance matrices is less than 0.001. The Spread versus level plots show that variances change on different means. The sample size varied among groups and was larger than fifteen for all of them. The reliability of this analysis was moderate.

Follow-up ANOVA on Oral & Listening Assessment
There were two dependent variables and three levels of teaching mode. When ANOVA was significant, multiple comparisons used an alpha level of 0.025, and when ANOVA was not significant, multiple comparisons used an alpha level of 0.05.

Three out of 6 multiple comparisons were significant. These are shown in the table below.

<table>
<thead>
<tr>
<th>Language scores</th>
<th>ANOVA p-value</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral scores</td>
<td>0.098</td>
<td>NET&gt;Both</td>
<td>0.003</td>
</tr>
<tr>
<td>Listening scores</td>
<td>0.121</td>
<td>NET&gt;Local</td>
<td>0.041</td>
</tr>
<tr>
<td>Listening scores</td>
<td>0.121</td>
<td>NET&gt;Both</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Discussion

The cross-sectional findings shown in the table above indicate that the oral assessment scores of primary pupils taught by a NET in the period from September 1999 to May 2000 in the P3 and P5 classes sampled, were significantly higher than those of pupils taught by a combination of NET and a local English teacher.
The listening scores of pupils taught by NETs in the same period in the P3 and P5 classes sampled, were significantly higher than the scores of pupils taught by locals or by a combination of locals and NETs.

6.2.2.4 Analysis of Writing Scores

A 3-way ANOVA was conducted to investigate whether there was a teaching mode effect influencing students’ writing scores in each of the administrations.

(A) Assumptions

Assumption tests statistics
The p-value of Levene’s test evaluates whether the variances among the dependent variables are the same for all levels of factor. This assumption is violated when the value is less than 0.05. Spread versus level plots illustrate whether any relationships exist between the group means and variances. Where a strong pattern in the plot does exist then the analysis is not reliable. Further, in order to satisfy the assumption of normality of dependent variable values, the sample size among the combination of groups should be at least fifteen.

(B) Testing the Assumptions

<table>
<thead>
<tr>
<th>Assumption tests statistics table of writing assessment</th>
<th>p-value of Levene's test</th>
<th>Pattern in Spread vs level plot</th>
<th>No. of samples with sizes less than fifteen</th>
<th>Reliability of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st cohort 1st administration</td>
<td>&lt; 0.001</td>
<td>None</td>
<td>9 out of 21</td>
<td>Moderate</td>
</tr>
<tr>
<td>1st cohort 2nd administration</td>
<td>0.029</td>
<td>Weak positive relationship</td>
<td>14 out of 27</td>
<td>Poor</td>
</tr>
<tr>
<td>2nd cohort 1st administration</td>
<td>&lt; 0.001</td>
<td>None</td>
<td>6 out of 14</td>
<td>Moderate</td>
</tr>
<tr>
<td>2nd cohort 2nd administration</td>
<td>0.004</td>
<td>One extreme outlier</td>
<td>11 out of 13</td>
<td>Moderate</td>
</tr>
<tr>
<td>Primary pupils</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st cohort 1st administration</td>
<td>0.18</td>
<td>Too few data</td>
<td>2 out of 4</td>
<td>Good</td>
</tr>
<tr>
<td>1st cohort 2nd administration</td>
<td>0.494</td>
<td>Too few data</td>
<td>2 out of 4</td>
<td>Good</td>
</tr>
<tr>
<td>2nd cohort 1st administration</td>
<td>0.072</td>
<td>Too few data</td>
<td>4 out of 4</td>
<td>Moderate</td>
</tr>
<tr>
<td>2nd cohort 2nd administration</td>
<td>0.011</td>
<td>Too few data</td>
<td>2 out of 4</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

The above table suggests that the reliability of the analyses was moderate to good, except for the analysis in 1st cohort 2nd administration of secondary school; results for this analysis are therefore not reported here.

(C) Findings of Writing Scores Analysis

Relevant SPSS outputs of all the analyses can be obtained on request from the research team (see footnote on page 5 above).
There was hardly any significant teaching mode effect involved in the cross-sectional analyses on writing assessment scores, except for the analysis of the 2nd cohort 1st administration secondary school data. Therefore we suggest that in all administrations except the 2nd cohort 1st Administration of secondary schools, different teaching modes had no influence on students’ writing assessment scores.

The 2nd cohort 1st administration secondary school analysis showed that there was a significant interaction effect of school level and teaching mode, therefore multiple comparisons were conducted on teaching mode in every school level.

### Multiple comparisons

<table>
<thead>
<tr>
<th>School level</th>
<th>Writing scores</th>
<th>ANOVA p-value</th>
<th>Levene's test p-value</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>0.003</td>
<td>0.004</td>
<td>NET &gt; Local</td>
<td>Dunnett's C</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NET &gt; Both</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On average, students taught by a NET had higher writing scores than those taught by local teachers in the low-level schools.

#### 6.2.2.5 Alternative Analysis of Writing Assessments

Due to the unbalanced and insufficient sample size, instead of performing an analysis similar to that employed for the oral and listening data, suitable alternative methods were selected for the analysis of individual cases. The concern was to identify any clear effects of teaching mode in the writing scores measured by the variable *number of words in error-free clauses / total word count proportion*: a higher proportion indicating better English writing skills (Ishikawa, 1995).

**A) 2-way ANOVA**

Analyses were done with 2-way ANOVA, independent t-test parametric methods and other non-parametric methods whenever necessary. There were no significant teaching mode effects on writing scores if school levels were not separated. However, when we blocked the school level, four pieces of statistical evidence were found.

The findings suggest that F1 students in medium ability schools who are taught by a combination of NET and local teachers scored higher than those students taught wholly by a NET. This is the only finding where higher scores were achieved by students with lower NET exposure. In all other cases, students with more NET exposure gained higher scores.

The findings are listed below:

**F1 students in medium-level school in the 1st cohort 1st administration:**

Parametric methods showed that students taught by a combination of NET and local teacher in 1998/99, had significantly higher scores than those taught by a NET teacher in the same period.

**P6 pupils in medium-level school in the 1st cohort 2nd administration:**

Parametric methods showed that pupils taught by NET in 1998/99 and 1999/2000, had significantly higher scores than those taught by local English teachers in the same period.
F3 students in low-level school in the 2nd cohort 1st Administration:
Independent t-tests with unequal variance assumed showed that students taught by a NET in 1998/99, had significantly higher scores than those taught by a local teacher in the same period.

P5 pupils in medium-level schools in the 2nd cohort 2nd Administration:
Pairwise t-tests with HSD method showed that students taught by a combination of NET and local teacher in 1999/2000, had significantly higher scores than those taught by local teachers in the same period.

(C) Paired t-tests
Assessment results in the 1st administration and 2nd administration for each combination of school-level and teaching mode were compared. 36 sampled schools were counted as valid while 13 were excluded since the number of subjects was less than eight. For the remaining samples, four tests provided statistical evidence of the effectiveness of the measure – proportion of words in error-free clauses as an indicator of language development. In three out of the four cases, students showed a significant improvement in their scores over the period investigated.

The results are as follows.

P6 pupils in Medium level schools in the 1st cohort:
There were 39 samples, Paired t-test and Wilcoxon Signed rank test show that pupils taught by NET in 1998/99 and 1999/2000 achieved better writing test scores in 2nd administration than in the 1st administration.

P5 pupils in Medium level schools in 2nd cohort:
There were 14 samples, Wilcoxon Signed rank test show pupils taught by a combination of NET and local teachers in 1998/99 and 1999/2000 achieved better writing test scores in the 2nd administration than in the 1st administration.

F4 students in High level schools in 1st cohort:
There were 20 samples, Paired t-test and Wilcoxon Signed rank test show that students taught by local teachers in 1998/99 and NET in 1999/2000 achieved better writing test result in the 2nd administration than in the 1st administration.

F1 students in High level schools in 2nd cohort:
There were 17 samples, Paired t-test and Wilcoxon Signed rank test show that students taught by a NET in 1999/2000 achieved poorer writing test scores in the 2nd administration than in the 1st administration.

6.2.3 Longitudinal Analysis of Language Assessment Scores Using Repeated Measures Analysis

6.2.3.1 Objective
The objective of the longitudinal analysis is to investigate quantifiable language development over time and to determine whether or not the effects of different modes of teaching (i.e. whether the students were taught by a NET, a local teacher or by both), at different levels of form and school can be found in the data. A repeated measure MANOVA was conducted on the coordinated oral and listening data. For the writing data, repeated measure ANOVA was conducted.
This is done by investigating the following effects:

Within-subject effect:
Do the mean trait scores change across the administrations in 1st and 2nd cohort?

Between-subject effect:
Are there differences in the mean trait scores for each trait between teaching modes?

Between-Subjects Interaction effect:
Does the pattern of differences between mean trait scores for teaching mode change for each group combination of form and school level?

Within-Subject by Between-Subject Interaction Effect:
Does the pattern of differences between mean trait scores for different teaching modes change in each administration?

For our purposes, the evaluation of Within-Subject by Between-Subject Interaction Effect is the ultimate objective. Therefore analyses were conducted with the aim of investigating this effect.

6.2.3.2 Methodology

Since data were measured repeatedly in 2 administrations in each cohort of the study, the longitudinal effect of these two time points is called a within-subjects factor. Data are divided into groups according to the combination of teaching mode, school level and form level; these group combinations are called between-subject factors. Our analysis has both within-subjects and between-subjects factors, therefore it is called a repeated measures 3-way ANOVA.

The uni-variate analysis result was used instead of a multivariate output since the within-subject factor has only 2 levels. In other words, there is only one dependent variable in the repeated measure analyses, and we are exploring the difference of scores between the 1st and 2nd administrations.

Exploratory analysis was conducted to look for possible differences in teaching mode effect (i.e. differences in assessment scores which might be the result of the different teaching approaches of the NET and the local teacher) at the different points in time when the assessment instruments were administered.

This was done first by examining the plots generated by the analysis for evidence of interaction.

Analytical investigation was conducted to determine whether any interactions of effects that involved teaching mode in the data were statistically significant.

6.2.3.3 Assumptions

Repeated measures ANOVA carries the standard set of assumptions associated with an ordinary analysis of variance, extended to the matrix case: multivariate normality,
homogeneity of covariance matrices, and independence. A repeated measures ANOVA analysis is robust to violations of the first two assumptions. A violation of independence of data produces a non-normal distribution of the residuals, which results in invalid F ratios.

6.2.3.4 Limitations

In SPSS, post-hoc multiple comparison is the normal way to compare groups to explore for significant effects. In repeated measures analysis the post-hoc multiple comparisons use the average of the scores obtained at two time points, and not the difference between the scores. The method is suitable for exploratory analysis to provide indications of possible answers to our questions of interest, but further investigation is needed to identify true effects. This is done using ANCOVA. (See Section 6.2.4 below.) In this section, only the exploratory analysis using repeated measures is described and results reported.

6.2.3.5 Findings

(A) Secondary

(i) First cohort second administration

Exploratory analysis by means of examination of the plots did not provide any evidence to suggest that there was any difference in teaching mode effect in the first cohort, second administration for the secondary language assessment data. That is there were no apparent differences in oral, listening or writing scores gathered from secondary students taught by NETs, Locals or Both.

Analytical investigation revealed that teaching mode effect was not interacting with time effects for either oral scores, listening scores, coordinated oral and listening scores or writing scores. In other words, irrespective of school and form level, in the first cohort secondary longitudinal analysis there was no evidence of a NET effect on language assessment scores. The interaction effect of oral and listening within-subjects factors and school level, form level, and teaching mode between-subject factor was significant. However, since the Eta squared value was small (0.028) and the teaching mode effect was not significant in lower level interactions, there is not sufficient evidence in these results to suggest that a significant NET effect exists in the sampled data.

(ii) Second cohort second administration

Exploratory analysis revealed a possible teaching mode effect in the form of an apparently marked difference between the oral scores produced by students taught by a NET and those taught by a local teacher. The plot is reproduced below.
Analytical investigation revealed that the difference in oral scores was significant. The teaching mode effect was interacting with the time effect for oral scores. Analytical analysis also revealed that the teaching mode was interacting with time for coordinated oral and listening scores, but not for either writing scores or listening scores.

In other words, in the second cohort, teaching mode effect was not interacting with the time effect for either listening scores or writing scores. However, teaching mode effect was interacting with the time effect for oral scores and coordinated oral and listening scores. The interaction of teaching mode and time was significant (for oral $p = 0.001$, $\eta^2 = 0.054$; for oral & listening $p = 0.007$, $\eta^2 = 0.020$) but the magnitude of the differences was small. This provides evidence that exposure to a NET was influential in increasing the oral assessment and coordinated oral and listening scores of secondary school students at all levels of school and all ability levels, and that this influence was significantly greater than that of local teachers teaching similar students.

There was a significant interaction effect of oral within-subject factor, form level, school level and teaching mode ($p$-value < 0.001), however the $\eta^2$ value was less than that for the interaction effect of the oral within-subjects factor and teaching mode, therefore no further analysis is needed. On the other hand, the interaction effect of the listening within-subjects factor, school level and teaching mode was significant ($p = 0.007$, $\eta^2 = 0.028$). But the interaction of teaching mode and listening within-subjects factor was not significant. Therefore graphical analysis is needed to further investigate the finding.

(B) Primary

(i) First cohort second administration

Examination of the first cohort plots revealed one that contained possible evidence of a teaching mode effect. The plot for the first cohort, second administration writing scores seemed to suggest a sizeable difference between scores obtained from students in the second administration of the writing tests.
Analytical investigation, however, revealed that the difference in writing scores was not significant.

On the other hand, in the analytical investigation significant differences were revealed in the listening scores. This provided evidence to suggest that there was a possible teaching mode effect on the listening scores of pupils who were taught by a NET in their first year and a local teacher in their second year, when compared to listening scores produced by pupils taught by local teachers. The difference was statistically significant ($p = 0.018$ Eta Squared $= 0.027$), however the magnitude of the difference was very small.

In other words, in the first cohort, the teaching mode effect was not interacting with the time effect for either oral scores or writing scores. However the teaching mode effect was interacting with the time effect for listening scores suggesting that pupils who were taught by a sequence of NET to Local over two years scored significantly higher in the listening assessment than pupils taught by a NET for two years and than pupils taught by a local teacher for two years. In interpreting this finding it needs to be borne in mind that the reliability of the primary listening test on the second administration was marginally unacceptable (please refer to Section 6.1.3.1 C above). For this reason the finding needs to be treated with caution.

A similar result was found for coordinated oral and listening scores ($p = 0.001$ Eta Squared $= 0.072$) however the magnitude of the difference was small.

The interaction effects for the oral within-subjects factor, school level and teaching mode, and the listening within-subjects factors, school level and teaching mode, were significant, but with Eta Squared values of less than that of the interaction effect of the listening within-subject factor and teaching mode. Therefore, further analysis was not considered.

The interaction effect for both the oral within-subject factor, form level and teaching mode was significant ($p = 0.001$ Eta Squared $= 0.122$). Therefore, graphical analysis is needed to further investigate the findings.

(ii) Second cohort second administration

Exploratory analysis revealed a possible interaction of teaching mode and time for the writing scores of pupils in the second cohort. The plot is reproduced below.
Analytical investigation of all the language assessment scores, however, revealed that there was no interaction of teaching mode and time for the writing scores, the listening or the coordinated oral and listening scores. However, there was a significant finding for the oral scores.

In the second cohort, the teaching mode effect was interacting with the time effect for oral scores. The effect was significant ($p = 0.003 \text{ Eta Squared } = 0.063$), but the magnitude was very small. This finding suggests that the influence of the NET was significant in producing higher oral assessment scores than those of local teachers or a combination of local teachers and NETs. In other words, pupils taught by a NET scored significantly higher in the oral assessments than pupils taught by other teachers.

### 6.2.4 Longitudinal Analysis of Language Assessment Scores Using ANCOVA

#### 6.2.4.1 Objectives

The aim of this section is to investigate the teaching mode effect on assessment scores of students and pupils in the second administration, whilst at the same time controlling the effects of assessment scores in the 1st administration; school level and form level in the 2nd administration. The purpose of this analysis is to see whether significant results similar to those of the repeated measures analysis are obtained.

#### 6.2.4.2 Methodology

Multiple Analysis of Co-variance (MANCOVA) was used for the coordinated oral and listening scores. For others, ANCOVA was used. The difference between ANCOVA and ANOVA is the additional effect of the dependent variable in the 1st administration. The ANCOVA analysis is reliable if its corrected model F-statistic is larger than the one in the ANOVA, and the corresponding Box test or Levene's test p-value is larger than 0.05. In the tables below, for each row, if the F-statistic of the ANCOVA is larger than that of the ANOVA, then the results are valid. All the dependent variables are scores from the 2nd administration of
the language assessments. Whenever a significant effect of the analysis involves a teaching mode effect it is reported first, otherwise, the largest effect in the model is reported.

6.2.4.3 Findings

(A) Secondary

(i) 1st cohort group

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>ANOVA Model F-statistic</th>
<th>ANCOVA Model F-statistic</th>
<th>Box test p-value or Levene's test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinated Oral &amp; Listening</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt; 0.001</td>
<td>Interaction of School level and teaching mode</td>
<td>0.035</td>
<td>0.024</td>
</tr>
<tr>
<td>Coordinated Oral</td>
<td>15.91</td>
<td>28.8</td>
<td>&lt; 0.001</td>
<td>1st admin oral</td>
<td>&lt; 0.001</td>
<td>0.225</td>
</tr>
<tr>
<td>Coordinated Listening</td>
<td>26.5</td>
<td>33.8</td>
<td>&lt; 0.001</td>
<td>1st admin listen</td>
<td>&lt; 0.001</td>
<td>0.191</td>
</tr>
<tr>
<td>Writing</td>
<td>6.6</td>
<td>6.6</td>
<td>0.002</td>
<td>School level</td>
<td>&lt; 0.001</td>
<td>0.135</td>
</tr>
</tbody>
</table>

Results in the above table suggest that after controlling the effect of the 1st administration, in the 2nd administration, the interaction effect of school level and teaching mode was significant in the analysis of the coordinated oral and listening scores. In the analyses of other dependent variables, no significant effect of teaching mode effect was observed.

<table>
<thead>
<tr>
<th>School level</th>
<th>Dependent variables</th>
<th>Teaching effect p-value</th>
<th>Effect Eta squared value</th>
<th>Levene's test</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Oral</td>
<td>0.027</td>
<td>0.06</td>
<td>0.077</td>
<td>Local to Local &gt; NET to NET; Local to Local &gt; Local to Local</td>
<td>0.009</td>
<td>0.011</td>
</tr>
<tr>
<td>Low Listening</td>
<td>0.001</td>
<td>0.1</td>
<td>0.004</td>
<td>NET to NET &gt; Local to Local; NET to NET &gt; Local to NET; NET to Local &gt; Local to Local</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td>Medium Oral</td>
<td>0.036</td>
<td>0.055</td>
<td>0.679</td>
<td>NET to NET &gt; NET to Local; NET to NET &gt; Local to NET; NET to Local &gt; Local to Local</td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td>Medium Listening</td>
<td>0.799</td>
<td>0.007</td>
<td>0.344</td>
<td>None</td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td>High Oral</td>
<td>0.003</td>
<td>0.082</td>
<td>0.396</td>
<td>NET to NET &gt; NET to Local; Local to NET &gt; Local to Local; Local to Local &gt; Local to Local; Local to Local &gt; NET to Local; Local to Local &gt; Local to Local</td>
<td>0.001</td>
<td>0.013</td>
</tr>
<tr>
<td>High Listening</td>
<td>0.082</td>
<td>0.069</td>
<td>0.013</td>
<td>NET to Local &gt; Local to Local</td>
<td>0.017</td>
<td></td>
</tr>
</tbody>
</table>

Results in the above table show that after controlling the effect of 1st administration, in the 2nd administration, the following two-year effects were suggested.

In the two-year period, 1998-2000, all students in low ability schools, who were taught by a local teacher for each of the two years had better oral scores than those taught by either a NET for two years or a local teacher in the first year and a NET in the second. Those who were taught by a NET for two years had better listening scores than those taught by either local teachers or both local teacher and NETs. Those who were taught by a NET in the first year and a local teacher in the second had better listening scores than those taught by a local teacher followed by a NET.
Students in medium ability schools who were taught by a NET for two years, had better oral scores than those taught by a NET and a local teacher, or by local teachers for two years.

All students in high-level schools who were taught by either NETs or local teachers for two years had better oral scores than those taught by a NET and a local teacher. Those who were taught by a NET and a local teacher had better listening scores than those taught exclusively by local teachers.

(ii) 2nd cohort group

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>ANOVA Model F-statistics</th>
<th>ANCOVA Model F-statistics</th>
<th>Box test p-value or Levene's test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinated Oral &amp; listening</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;0.001</td>
<td>Interaction of school level, form level &amp; teaching mode</td>
<td>&lt;0.001</td>
<td>0.031</td>
</tr>
<tr>
<td>Coordinated Oral</td>
<td>6.3</td>
<td>37.1</td>
<td>0.127</td>
<td>Interaction of school level, form level &amp; teaching mode</td>
<td>&lt;0.001</td>
<td>0.031</td>
</tr>
<tr>
<td>Coordinated Listening</td>
<td>28.7</td>
<td>44.9</td>
<td>0.007</td>
<td>Interaction of form level &amp; teaching mode</td>
<td>None</td>
<td>0.001</td>
</tr>
<tr>
<td>Writing</td>
<td>0.9</td>
<td>1.8</td>
<td>0.065</td>
<td>1st admin writing</td>
<td>0.001</td>
<td>0.147</td>
</tr>
</tbody>
</table>

Results in the above table shows that after controlling the effect of 1st administration, in the 2nd administration, the interaction effect of school level, form level and teaching mode was significant in the analysis of both the coordinated oral and listening scores and coordinated oral scores. The interaction effect of form level and teaching mode was significant in the analysis of the coordinated listening scores.

<table>
<thead>
<tr>
<th>Form level</th>
<th>School level</th>
<th>Dependent variables</th>
<th>Teaching effect p-value</th>
<th>Effect Eta squared value</th>
<th>Levene's test</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form1</td>
<td>Medium</td>
<td>Oral</td>
<td>0.143</td>
<td>0.037</td>
<td>0.128</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening</td>
<td>0.272</td>
<td>0.025</td>
<td>0.485</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Oral</td>
<td>&lt;0.001</td>
<td>0.338</td>
<td>0.741</td>
<td>Local &gt; NET</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening</td>
<td>0.855</td>
<td>0.004</td>
<td>0.016</td>
<td>Local &gt; Both</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Oral</td>
<td>0.004</td>
<td>0.146</td>
<td>0.536</td>
<td>Local &gt; NET</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening</td>
<td>0.234</td>
<td>0.04</td>
<td>0.636</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>Oral</td>
<td>0.306</td>
<td>0.022</td>
<td>0.477</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening</td>
<td>0.006</td>
<td>0.091</td>
<td>0.327</td>
<td>NET &gt; Local</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NET &gt; Both</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Oral</td>
<td>0.025</td>
<td>0.086</td>
<td>0.01</td>
<td>Both &gt; Local</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening</td>
<td>0.059</td>
<td>0.062</td>
<td>0.581</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

Results in the above table show that after controlling the students’ performance in the 1st administration, in the 2nd administration, the following effects were suggested.

F1 students in high ability schools who were taught by a local teacher had better oral scores than those taught by a NET or by a combination of NETs and local teachers. F3 students in low ability schools taught by local teachers had better oral scores than those taught by NETs. F3 students in medium ability schools, who were taught by NET teachers, had better listening scores than those taught by local teachers or a combination of local teachers and NETs. F3
students in high ability school who were taught by a combination of local teachers and NETs had better oral scores than those taught by local teachers alone.

(B) Primary pupils

(i) 1st cohort group

<table>
<thead>
<tr>
<th>Coordinated Oral &amp; listening</th>
<th>ANOVA Model F-statistics</th>
<th>ANCOVA Model F-statistics</th>
<th>Box test p-value or Levene’s test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinated Oral</td>
<td>N/A</td>
<td>N/A</td>
<td>&lt;0.001</td>
<td>Interaction of form level and teaching mode</td>
<td>0.01</td>
<td>0.031</td>
</tr>
<tr>
<td>Coordinated Oral</td>
<td>6.3</td>
<td>36.1</td>
<td>&lt;0.001</td>
<td>Interaction of both form level and school level with teaching mode</td>
<td>0.011</td>
<td>0.022</td>
</tr>
<tr>
<td>Coordinated Listening</td>
<td>15.8</td>
<td>38.2</td>
<td>&lt;0.001</td>
<td>1st admin listen</td>
<td>&lt;0.001</td>
<td>0.206</td>
</tr>
<tr>
<td>Writing</td>
<td>2.7</td>
<td>6.3</td>
<td>0.283</td>
<td>1st admin writing</td>
<td>0.004</td>
<td>0.143</td>
</tr>
</tbody>
</table>

Results in the above table suggest that after controlling the effect of the 1st administration, in the 2nd administration, the interaction effect of form level and teaching mode was significant in the analysis of both the coordinated oral and listening scores and coordinated oral scores. In addition, the interaction effect of school level and teaching mode was significant in the analysis of the coordinated oral scores.

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Teaching effect p-value</th>
<th>Effect Eta squared value</th>
<th>Levene’s test</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>0.071</td>
<td>0.026</td>
<td>&lt;0.001</td>
<td>Local to Local &gt; NET to NET</td>
<td>0.008</td>
</tr>
<tr>
<td>Listening</td>
<td>0.008</td>
<td>0.055</td>
<td>0.162</td>
<td>Local to Local &gt; NET to NET</td>
<td>0.008</td>
</tr>
<tr>
<td>P6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>&lt;0.001</td>
<td>0.234</td>
<td>0.203</td>
<td>Local to Local &gt; NET to NET</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Listening</td>
<td>0.784</td>
<td>0.003</td>
<td>0.002</td>
<td>Local to Local &gt; NET to NET</td>
<td>0.001</td>
</tr>
</tbody>
</table>

In the above table, the results suggest that after taking account of the pupils’ performance in the 1st administration, in the 2nd administration, P6 and P4 pupils who were taught by local teachers for two years had better oral and listening scores than those taught by NETs for the same period. However, P6 pupils taught by a NET in the first year and a local teacher in the second had better oral scores than those taught by a NET for two years.

(ii) 2nd cohort group

<table>
<thead>
<tr>
<th>Coordinated Oral &amp; listening</th>
<th>ANOVA Model F-statistics</th>
<th>ANCOVA Model F-statistics</th>
<th>Box test p-value or Levene’s test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinated Oral &amp; listening</td>
<td>N/A</td>
<td>N/A</td>
<td>0.046</td>
<td>1st admin. Oral</td>
<td>&lt;0.001</td>
<td>0.446</td>
</tr>
<tr>
<td>Coordinated Oral</td>
<td>9.1</td>
<td>38.1</td>
<td>0.151</td>
<td>1st admin. Oral</td>
<td>&lt;0.001</td>
<td>0.39</td>
</tr>
<tr>
<td>Coordinated Listening</td>
<td>10.1</td>
<td>14.4</td>
<td>0.03</td>
<td>1st admin. Oral</td>
<td>&lt;0.001</td>
<td>0.153</td>
</tr>
<tr>
<td>Writing</td>
<td>5.4</td>
<td>5.2</td>
<td>0.022</td>
<td>School level</td>
<td>0.049</td>
<td>0.123</td>
</tr>
</tbody>
</table>

Results in the above table suggest that after controlling the effect of the 1st administration, in the 2nd administration, no significant effect of teaching mode was observed.
**Conclusion**

The effect of different teaching modes was shown to have influenced secondary students' performance in the 2nd administration of the 1st and 2nd cohorts, and primary pupils' performance in the 2nd administration of the 1st cohort, when account was taken of their performance in the 1st administration.

6.2.5 Alternative Analysis of Oral and Listening Scores

6.2.5.1 Paired Samples T-tests

Paired samples t-tests were performed on both the first and second cohort of secondary students' oral and listening assessment scores. The aim was to establish any possible gain between the pre and the post test scores and if so to establish any possible patterns in teaching modes over the given time period. The analysis was done by school level (high, medium and low), with the following results:

(A) Secondary

(i) First cohort group

Listening Assessment

*Form 1 students*

**High level schools**

*F1 – F2 Listening*

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R^2</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>32</td>
<td>32.57</td>
<td>6.849</td>
<td>35.85</td>
<td>8.013</td>
<td>0.565</td>
<td>-2.648 p=0.013*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>53</td>
<td>26.98</td>
<td>6.533</td>
<td>31.45</td>
<td>8.107</td>
<td>0.529</td>
<td>-4.500 p=&lt;0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>11</td>
<td>30.95</td>
<td>6.547</td>
<td>32.72</td>
<td>7.281</td>
<td>0.945</td>
<td>-2.448 p=0.034*</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>6</td>
<td>34.75</td>
<td>4.782</td>
<td>40.75</td>
<td>7.789</td>
<td>0.880</td>
<td>-3.464 p=0.018*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05
In lower secondary schools (F1-F2), there was significant gain in the mean scores of the listening assessment between the pre and post tests in five cases. For the high level schools, student taught by either a teaching transition of NET to NET, Local to NET or Local to Local had higher scores in the post test than in the pre test. For the medium level schools, student taught by a teaching transition of NET to Local had higher scores in the post test than in the pre test. For the low level schools, student taught by a teaching transition of NET to NET had higher scores in the post test than in the pre test.

Form 3 and Form 4 students

High level schools

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>43</td>
<td>27.95</td>
<td>4.545</td>
<td>31.00</td>
<td>4.472</td>
<td>0.650</td>
<td>-5.295 p=0.001*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>22</td>
<td>30.77</td>
<td>3.544</td>
<td>34.45</td>
<td>3.081</td>
<td>0.346</td>
<td>-4.533 p=0.001*</td>
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<tr>
<td>Local</td>
<td>Local</td>
<td>14</td>
<td>30.14</td>
<td>4.435</td>
<td>29.21</td>
<td>9.463</td>
<td>0.357</td>
<td>0.390 p=0.703</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05
**Medium level schools**

F3 – F4, F4 – F5 Listening

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>24</td>
<td>20.41</td>
<td>3.034</td>
<td>23.37</td>
<td>5.156</td>
<td>0.384</td>
<td>-2.972 p=0.007*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>28</td>
<td>21.53</td>
<td>3.834</td>
<td>20.50</td>
<td>5.821</td>
<td>0.419</td>
<td>1.002 p=0.325</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>35</td>
<td>20.22</td>
<td>5.303</td>
<td>21.71</td>
<td>6.871</td>
<td>0.728</td>
<td>-1.861 p=0.071</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>2</td>
<td>15.50</td>
<td>4.949</td>
<td>23.50</td>
<td>5.535</td>
<td>-1.00</td>
<td>-1.333 p=0.410</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

**Low level schools**

F3 – F4, F4 – F5 Listening

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>53</td>
<td>17.03</td>
<td>3.546</td>
<td>19.81</td>
<td>3.858</td>
<td>0.535</td>
<td>-5.637 p=&lt;0.001*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>No relevant data</td>
<td>No relevant data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>No relevant data</td>
<td>No relevant data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>11</td>
<td>17.54</td>
<td>5.768</td>
<td>17.72</td>
<td>6.117</td>
<td>0.733</td>
<td>-0.138 p=0.893</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

In upper secondary schools (F3-F4), there was significant gain in the mean scores of the listening assessment in four cases. For high-level schools, student taught by a teaching transition of NET to NET or Local to NET had higher scores in the post test than in the pre test. For medium-level schools, student taught by a teaching transition of NET to NET had higher scores in the post test than in the pre test. For low-level schools, student taught by a teaching transition of NET to NET had higher scores in the post test than in the pre test.

Eight out of the above nine groups involve the deployment of NET teachers (and the ninth was made up of only a very small sample size of 6). In fact, five of these groups involved students who were taught by NETs in two consecutive years. Whilst advising caution in the generalization of paired sample t-tests (which are fixed point in time measurements), there is some evidence that there is a NET effect in helping to improve the listening skills of both upper and lower secondary students.
Oral Assessment

Form 1 students

High level schools

\[ F1 - F2 \text{ Oral} \]

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>77</td>
<td>19.75</td>
<td>5.171</td>
<td>19.37</td>
<td>5.125</td>
<td>0.419</td>
<td>0.606</td>
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<tr>
<td>NET</td>
<td>Local</td>
<td>64</td>
<td>20.15</td>
<td>4.677</td>
<td>19.46</td>
<td>4.918</td>
<td>0.596</td>
<td>1.274</td>
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</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>17</td>
<td>20.35</td>
<td>4.636</td>
<td>21.17</td>
<td>4.720</td>
<td>0.754</td>
<td>1.034</td>
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<tr>
<td>Local</td>
<td>Local</td>
<td>20</td>
<td>20.50</td>
<td>6.202</td>
<td>22.30</td>
<td>6.300</td>
<td>0.886</td>
<td>2.698</td>
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</tbody>
</table>

* significant at p = < 0.05

Medium level schools

\[ F1 - F2 \text{ Oral} \]

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
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</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>2</td>
<td>14.50</td>
<td>2.121</td>
<td>18.00</td>
<td>2.828</td>
<td>-1.000</td>
<td>-1.000</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>75</td>
<td>17.18</td>
<td>5.082</td>
<td>17.38</td>
<td>4.434</td>
<td>0.571</td>
<td>-0.377</td>
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</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>12</td>
<td>18.50</td>
<td>4.295</td>
<td>15.66</td>
<td>5.069</td>
<td>0.363</td>
<td>1.844</td>
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<tr>
<td>Local</td>
<td>Local</td>
<td>71</td>
<td>16.50</td>
<td>6.765</td>
<td>16.03</td>
<td>5.041</td>
<td>0.658</td>
<td>0.775</td>
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</tbody>
</table>

* significant at p = < 0.05

Low level schools

\[ F1 - F2 \text{ Oral} \]

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>42</td>
<td>12.83</td>
<td>5.954</td>
<td>11.42</td>
<td>4.644</td>
<td>0.629</td>
<td>1.930</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>26</td>
<td>12.84</td>
<td>4.397</td>
<td>14.51</td>
<td>3.853</td>
<td>-0.280</td>
<td>-1.291</td>
</tr>
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<td></td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>12</td>
<td>15.75</td>
<td>4.515</td>
<td>12.41</td>
<td>4.481</td>
<td>0.347</td>
<td>2.246</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>14</td>
<td>8.28</td>
<td>4.631</td>
<td>15.71</td>
<td>3.220</td>
<td>0.815</td>
<td>-10.153</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

In lower secondary schools (F1-F2), there was significant gain in the mean scores of the oral assessment between the pre and post tests in three cases. For the high level schools, student taught by a teaching transition of Local to Local had higher scores in the post test than in the pre test. For the low level schools, student taught by either a teaching transition of Local to Local or Local to NET had higher scores in the post test than in the pre test.
Form 3 and Form 4 students

High level schools
F3 – F4, F4 – F5 Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>teaching mode</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>81</td>
<td>19.32</td>
<td>4.826</td>
<td>21.29</td>
<td>4.417</td>
<td>0.640</td>
<td>-4.516 p&lt;0.001*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>34</td>
<td>19.23</td>
<td>3.199</td>
<td>19.85</td>
<td>6.243</td>
<td>0.512</td>
<td>-0.629 p=0.534</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>27</td>
<td>25.48</td>
<td>4.371</td>
<td>25.51</td>
<td>3.714</td>
<td>0.481</td>
<td>-0.046 p=0.963</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>26</td>
<td>21.38</td>
<td>2.926</td>
<td>23.11</td>
<td>3.993</td>
<td>0.533</td>
<td>-2.543 p=0.018*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Medium level schools
F3 – F4, F4 – F5 Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>teaching mode</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>20</td>
<td>17.65</td>
<td>5.050</td>
<td>19.85</td>
<td>4.826</td>
<td>0.246</td>
<td>-1.622 p=0.121</td>
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<tr>
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<td>Local</td>
<td>42</td>
<td>16.76</td>
<td>4.673</td>
<td>20.14</td>
<td>5.089</td>
<td>0.328</td>
<td>-3.755 p=0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>47</td>
<td>16.65</td>
<td>5.506</td>
<td>19.39</td>
<td>5.198</td>
<td>0.503</td>
<td>-3.494 p=0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>24</td>
<td>12.54</td>
<td>5.200</td>
<td>18.16</td>
<td>5.700</td>
<td>0.742</td>
<td>-6.988 p=&lt;0.001*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Low level schools
F3 – F4, F4 – F5 Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>teaching mode</th>
<th>n</th>
<th>Pre-test</th>
<th>s.d (pre test)</th>
<th>Post-test</th>
<th>s.d (post test)</th>
<th>Pre-post Test R²</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>82</td>
<td>14.32</td>
<td>5.998</td>
<td>15.84</td>
<td>5.186</td>
<td>0.556</td>
<td>-2.585 p=0.012*</td>
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<td>NET</td>
<td>Local</td>
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<td>no relevant data</td>
<td>no relevant data</td>
<td>no relevant data</td>
<td>no relevant data</td>
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</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>no relevant data</td>
<td>no relevant data</td>
<td>no relevant data</td>
<td>no relevant data</td>
<td>no relevant data</td>
<td>no relevant data</td>
<td>no relevant data</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>22</td>
<td>11.18</td>
<td>3.775</td>
<td>15.09</td>
<td>4.770</td>
<td>0.710</td>
<td>-5.426 p=&lt;0.001*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

In upper secondary schools (F3-F4), there was significant gain in the mean scores of the oral assessment in seven cases. For the high level schools, student taught by either a teaching transition of Local to Local or NET to NET had higher scores in the post test than in the pre test. For the medium level schools, student taught by either a teaching transition of Local to Local, NET to Local or Local to NET had higher scores in the post test than in the pre test. For the low level schools, student taught by either a teaching transition of Local to Local or NET to NET had higher scores in the post test than in the pre test.

Although there was a significant gain in the mean scores of the oral assessments between the pre and the post tests, there does not seem to be any discernable pattern with regard to the deployment of NETs. Although NETs were involved in five of the above ten groups it is not
possible on the evidence of this analysis to attribute any NET effect to the gains. In lower secondary schools (F1-F2), on balance local teachers were involved in all three significant groups, whilst in upper secondary schools (F3-F4), both NETs and Local teachers were involved in an equal number of groups. This paired samples t-test indicates that there is no evidence of any NET effect in helping to improve the oral skills of either upper or lower secondary students.

(ii) 2nd Cohort Group

Oral Assessment

Form 1 students

High level schools

F1 pre –F1 post Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>n</th>
<th>mean oral1</th>
<th>mean oral2</th>
<th>mean difference</th>
<th>correlation oral1/oral2</th>
<th>paired samples p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>61</td>
<td>17.74</td>
<td>17.34</td>
<td>-0.40</td>
<td>0.760*</td>
<td>p = 0.390</td>
</tr>
<tr>
<td>LOCAL</td>
<td>30</td>
<td>17.20</td>
<td>22.23</td>
<td>+5.03</td>
<td>0.360</td>
<td>p = 0.051*</td>
</tr>
<tr>
<td>BOTH</td>
<td>37</td>
<td>18.24</td>
<td>17.51</td>
<td>-0.73</td>
<td>0.628*</td>
<td>p = 0.296</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Medium level schools

F1 pre –F1 post Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>n</th>
<th>mean oral1</th>
<th>mean oral2</th>
<th>mean difference</th>
<th>correlation oral1/oral2</th>
<th>paired samples p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>32</td>
<td>17.06</td>
<td>17.87</td>
<td>+0.81</td>
<td>0.908*</td>
<td>p = 0.062</td>
</tr>
<tr>
<td>LOCAL</td>
<td>67</td>
<td>17.06</td>
<td>18.91</td>
<td>+1.85</td>
<td>0.578*</td>
<td>p = 0.001*</td>
</tr>
<tr>
<td>BOTH</td>
<td>12</td>
<td>12.08</td>
<td>14.75</td>
<td>+2.67</td>
<td>0.003*</td>
<td>p = 0.004*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Low level schools

F1 pre –F1 post Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>n</th>
<th>mean oral1</th>
<th>mean oral2</th>
<th>mean difference</th>
<th>correlation oral1/oral2</th>
<th>paired samples p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td></td>
<td>Insufficient data</td>
<td>Insufficient data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOCAL</td>
<td></td>
<td>Insufficient data</td>
<td>Insufficient data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOTH</td>
<td>83</td>
<td>12.32</td>
<td>13.49</td>
<td>+1.17</td>
<td>0.775*</td>
<td>p = 0.014*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

In the nine categories of F1 students above, there was insufficient data for analysis in two cases: NET, low level; LOCAL, low level. Of the remaining seven categories, the paired sample t-tests showed significant gain in oral assessment between oral1 and oral2 in four categories: LOCAL, high level; LOCAL, medium level; BOTH medium level; BOTH low level. In the remaining three categories there was no significant difference in oral assessment between oral1 and oral2. We can cautiously conclude from these paired sample t-tests that students taught by both local teachers and those taught by a combination of both local and NET show significant gain in their speaking scores, whilst those students taught only by NET teachers do show gain but not at a significant level.
Form 3 Students

High level schools

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>n</th>
<th>Pre-test average</th>
<th>Post-test average</th>
<th>Post-test average difference</th>
<th>Pre-post Correlation value</th>
<th>Paired samples p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>20</td>
<td>27.05</td>
<td>25.30</td>
<td>-1.75</td>
<td>0.548</td>
<td>p = 0.024*</td>
</tr>
<tr>
<td>Local</td>
<td>40</td>
<td>21.05</td>
<td>20.22</td>
<td>-0.83</td>
<td>0.810*</td>
<td>p = 0.080</td>
</tr>
<tr>
<td>Both</td>
<td>60</td>
<td>16.00</td>
<td>19.82</td>
<td>+3.82</td>
<td>0.388*</td>
<td>p &lt; 0.001*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Medium level schools

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>n</th>
<th>Pre-test average</th>
<th>Post-test average</th>
<th>Post-test average difference</th>
<th>Pre-post Correlation value</th>
<th>Paired samples p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>33</td>
<td>16.80</td>
<td>19.57</td>
<td>+2.77</td>
<td>0.724*</td>
<td>p &lt; 0.001*</td>
</tr>
<tr>
<td>Local</td>
<td>57</td>
<td>16.78</td>
<td>18.45</td>
<td>+1.67</td>
<td>0.606*</td>
<td>p = 0.003*</td>
</tr>
<tr>
<td>Both</td>
<td>52</td>
<td>16.96</td>
<td>17.40</td>
<td>+0.44</td>
<td>0.472*</td>
<td>p &lt; 0.001*</td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

Low level schools

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>n</th>
<th>Pre-test average</th>
<th>Post-test average</th>
<th>Post-test average difference</th>
<th>Pre-post Correlation value</th>
<th>Paired samples p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>50</td>
<td>16.22</td>
<td>16.90</td>
<td>+0.68</td>
<td>0.848*</td>
<td>p = 0.161</td>
</tr>
<tr>
<td>Local</td>
<td>28</td>
<td>17.21</td>
<td>20.46</td>
<td>+3.25</td>
<td>0.395</td>
<td>p = 0.005*</td>
</tr>
<tr>
<td>Both</td>
<td></td>
<td></td>
<td>Insufficient Data</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* significant at p = < 0.05

In the nine categories of F3 students above, there was insufficient data for analysis in two cases: NET, low level; LOCAL, low level. Of the remaining seven categories, the paired sample t-tests showed significant gain in oral assessment between oral1 and oral2 in four categories: LOCAL, high level; LOCAL, medium level; BOTH medium level; BOTH low level. In the remaining three categories there was no significant difference in oral assessment between oral1 and oral2. We can cautiously conclude from these paired sample t-tests that F1 students taught by both local teachers and those taught by a combination of both local and NET show significant gain in their speaking scores, whilst those students taught only by NET teachers do show gain but not at a significant level.

(B) Primary Schools

(I) First Cohort Groups

Paired sample t-tests were also conducted for both the first and second cohort of pupils, according to teaching mode. For the first cohort, there were two such modes (i.e. the type of teaching (NET, or Local) experienced in year 1 and year 2) but due to incomplete data it was not possible to conduct the analysis on all possible group combinations. Results are shown in the tables below:
Listening Assessment

### P3 Listening

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>100</td>
<td>13.37</td>
<td>15.12</td>
<td>0.528</td>
<td>1.75</td>
<td>-5.267, p&lt;0.001*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>data not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>data not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>40</td>
<td>14.65</td>
<td>15.70</td>
<td>0.363</td>
<td>1.05</td>
<td>-2.371, p=0.023*</td>
</tr>
</tbody>
</table>

### P5 Listening

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>69</td>
<td>16.39</td>
<td>17.36</td>
<td>0.596</td>
<td>0.57</td>
<td>-2.482, p=0.017*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>13</td>
<td>18.84</td>
<td>18.30</td>
<td>0.815</td>
<td>-0.53</td>
<td>-1.203, p=0.252</td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>63</td>
<td>14.74</td>
<td>17.00</td>
<td>0.582</td>
<td>2.26</td>
<td>-6.096, p&lt;0.001*</td>
</tr>
</tbody>
</table>

The results in the above table show that in listening, on average four of the five groups that were analysed showed significant positive gain, as follows, but it is not possible to ascribe gain in listening to any particular teaching mode. The gain however does lend support to the reliability of the instruments, since significant gain over time would be predicted.

Oral Assessment

### P3 to P4 Oral

<table>
<thead>
<tr>
<th>teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>133</td>
<td>15.28</td>
<td>15.51</td>
<td>0.616</td>
<td>0.23</td>
<td>-0.593, p=0.555</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>data not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>data not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>75</td>
<td>12.89</td>
<td>17.13</td>
<td>0.687</td>
<td>4.27</td>
<td>-11.399, p&lt;0.001*</td>
</tr>
</tbody>
</table>

### P5 to P6 Oral

<table>
<thead>
<tr>
<th>Teaching mode Year1</th>
<th>teaching mode Year2</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>NET</td>
<td>94</td>
<td>15.37</td>
<td>16.14</td>
<td>0.693</td>
<td>0.79</td>
<td>-2.289, p=0.024*</td>
</tr>
<tr>
<td>NET</td>
<td>Local</td>
<td>16</td>
<td>14.32</td>
<td>16.31</td>
<td>0.744</td>
<td>1.99</td>
<td>-2.271, p&lt;0.038*</td>
</tr>
<tr>
<td>Local</td>
<td>NET</td>
<td>data not available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Local</td>
<td>78</td>
<td>14.95</td>
<td>18.36</td>
<td>0.597</td>
<td>3.41</td>
<td>-7.831, p&lt;0.001*</td>
</tr>
</tbody>
</table>

The above results show that in speaking, on average, four of the five groups that were analysed showed significant positive gain. From these results, again it is not possible to ascribe gain in
speaking scores as measured by our instruments to any particular teaching mode. As in the listening scores analysis the results again support the reliability of the instruments used, since significant gain over time would be predicated.

(ii) Second Cohort Group

Listening Assessment

**High Level Schools**

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
<td>12</td>
<td>17.83</td>
<td>17.83</td>
<td>0.785</td>
<td>0.000</td>
<td>0.000 p=1</td>
</tr>
</tbody>
</table>

**P5 Listening**

<table>
<thead>
<tr>
<th>Teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>22</td>
<td>19.32</td>
<td>18.27</td>
<td>0.682</td>
<td>-1.05</td>
<td>2.383 p=0.027*</td>
</tr>
<tr>
<td>Both</td>
<td>8</td>
<td>19.37</td>
<td>18.62</td>
<td>0.684</td>
<td>-0.75</td>
<td>1.53 p=0.170</td>
</tr>
</tbody>
</table>

**Medium Level Schools**

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
<td>74</td>
<td>13.53</td>
<td>15.48</td>
<td>0.285</td>
<td>1.95</td>
<td>-4.102 p&lt;0.001*</td>
</tr>
</tbody>
</table>

**P5 Listening**

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>21</td>
<td>14.43</td>
<td>15.95</td>
<td>0.071</td>
<td>1.52</td>
<td>-1.657 p=0.113</td>
</tr>
<tr>
<td>Both</td>
<td>46</td>
<td>16.69</td>
<td>17.30</td>
<td>0.49</td>
<td>0.61</td>
<td>-1.287 p=0.205</td>
</tr>
</tbody>
</table>

The above results show that in listening, P3 pupils taught by NET in high-level school showed significant negative fall. P3 pupils taught by a combination of NET and Local teacher in medium-level school showed any significant positive gain. However, from these results it is not possible to ascribe gain in listening scores as measured by our instruments to any particular teaching mode.
Oral Assessment

High Level Schools

P3 Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
<td>15</td>
<td>20.10</td>
<td>21.93</td>
<td>0.741</td>
<td>1.83</td>
<td>-2.407 p=0.030*</td>
</tr>
</tbody>
</table>

P5 Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET</td>
<td>24</td>
<td>18.08</td>
<td>19.67</td>
<td>0.863</td>
<td>-1.62</td>
<td>-3.487 p=0.002*</td>
</tr>
<tr>
<td>Both</td>
<td>8</td>
<td>18.62</td>
<td>19.37</td>
<td>0.90</td>
<td>0.75</td>
<td>-1.476 p=0.183</td>
</tr>
</tbody>
</table>

Medium Level Schools

P3 Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
<td>95</td>
<td>14.71</td>
<td>15.80</td>
<td>0.677</td>
<td>1.09</td>
<td>-2.880 p=0.005*</td>
</tr>
</tbody>
</table>

P5 Oral

<table>
<thead>
<tr>
<th>teaching mode</th>
<th>number</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Pre-post test $R^2$</th>
<th>Pre-post test difference</th>
<th>t value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>24</td>
<td>16.54</td>
<td>17.33</td>
<td>0.724</td>
<td>0.79</td>
<td>-1.336 p=0.195</td>
</tr>
<tr>
<td>Both</td>
<td>55</td>
<td>14.84</td>
<td>15.89</td>
<td>0.811</td>
<td>1.05</td>
<td>-3.051 p=0.004*</td>
</tr>
</tbody>
</table>

The above results show that in speaking, P3 pupils taught a combination of NET and local teacher in either medium or high-level schools had significant positive gain. For P5 pupils taught by NET in high-level school and a combination of NET and Local teacher in medium-level school, had significant positive gain in speaking ability.

NET teachers were involved in the teaching of all the above four groups. However, it is not possible to ascribe the gain in speaking scores as measured by the instruments solely to the deployment of a NET teacher, particularly since in three of the cases the local teacher was also involved. In addition, such an analysis is not able to show the extent to which gain can be attributed to any one factor – in this case teaching mode.

Again the results of this analysis tend to support the reliability of the instruments used, since significant gain over time would be predicated between pre and post test measurements given reliable instruments.

6.2.5.2 Multiple Regressions

(A) Objective and Methodology

One of the difficulties in interpreting the results of this analysis lies in the category ‘BOTH’. Whilst it is true that students in this category were indeed taught by both local and NET
teachers, the deployment of the NET teacher varied considerably from one school to the next. For example, in some cases half of the class was taught by the NET teacher for the first half of a term and the other half by the local teacher. The two teachers would then swap groups mid-way through the term. In other cases, classes were taught for one or two lessons per week in 'oral only' deployment. And in further cases, classes were taught in 'blocks' of a few weeks at a time by the NET. In still further cases, a clear pattern of deployment was difficult to determine. Thus within the BOTH category there are a number of different types of deployment (see also the discussion of Split Class Deployment Patterns in Section 5.3.1 above). To further sub-divide the BOTH category into groups of similar 'BOTH deployment' was not feasible since the resulting cell sizes would have compromised the validity and would not permit meaningful generalisation from the sample to the population.

To overcome this difficulty, further research was carried out to determine the number of hours that students had been exposed to the NET over a given period. A further variable ($t_{cls}$) was consequently established created and multiple regression models were built to determine the extent to which the amount of exposure to the NET teacher over a given period could be used as a predictor of the result of the second administration of the oral assessment.

For the multiple analysis, the dependent variable was the oral scores in 2nd administration, the independent variables were oral scores in 1st administration ($oral_1$), number of hours that students had been exposed to the NET over a given period in 1st administration ($t_{cls1}$) and 2nd administration ($t_{cls2}$).

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>$oral_2$</th>
<th>$oral_1$</th>
<th>$t_{cls1}$</th>
<th>$t_{cls2}$</th>
<th>Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>$coeff_1$</td>
<td>$coeff_2$</td>
<td>$coeff_3$</td>
<td>$coeff_4$</td>
<td>$residual$</td>
</tr>
</tbody>
</table>

The coefficient of each independent variable is representing that, on average, the changes of dependent variable by one unit increase of the independent variable, whilst holding other independent variables constant.
## Findings

### 1st Cohort Group

*Secondary Oral assessment*

### Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Form</th>
<th>School Band</th>
<th>Regression Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2</td>
<td>High</td>
<td>Oral2 = 9.220 + 0.530 oral1 + 0.003927 t_cls1 - 0.00685 t_cls2 + ε (oral1 p-value &lt; 0.001) (t_cls1 p-value = 0.275) (t_cls2 p-value = 0.711) Model adjusted $R^2 = 0.284$</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>Oral2 = 5.790 + 0.556 oral1 + 0.01246 t_cls1 + 0.00419 t_cls2 + ε (oral1 p-value &lt; 0.001) (t_cls1 p-value &lt; 0.001) (t_cls2 p-value = 0.501) Model adjusted $R^2 = 0.445$</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Oral2 = 9.164 + 0.311 oral1 + 0.006294 t_cls1 - 0.0171 t_cls2 + ε (oral1 p-value &lt; 0.001) (t_cls1 p-value = 0.158) (t_cls2 p-value = 0.12) Model adjusted $R^2 = 0.156$</td>
</tr>
<tr>
<td>F4,5</td>
<td>High</td>
<td>Oral2 = 9.960 + 0.564 oral1 + 0.03751 t_cls1 - 0.00509 t_cls2 + ε (oral1 p-value &lt; 0.001) (t_cls1 p-value = 0.344) (t_cls2 p-value = 0.697) Model adjusted $R^2 = 0.279$</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>Oral2 = 11.211 + 0.495 oral1 + 0.01159 t_cls1 - 0.00898 t_cls2 + ε (oral1 p-value &lt; 0.001) (t_cls1 p-value = 0.018) (t_cls2 p-value = 0.682) Model adjusted $R^2 = 0.272$</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Oral2 = 8.937 + 0.47 oral1 - 0.00606 t_cls1 + 0.0167 t_cls2 + ε (oral1 p-value &lt; 0.001) (t_cls1 p-value = 0.174) (t_cls2 p-value = 0.019) Model adjusted $R^2 = 0.342$</td>
</tr>
</tbody>
</table>

In all of the above models, it can be seen that the first administration of the oral assessment (oral1) is a good predictor of the second administration (oral2) with all values being significant ($p < 0.05$). This fact adds more weight to the reliability and robustness of the instruments used. The amount of exposure to the NET teacher over the two given periods (t_cls1 and t_cls2) does not account for large amounts of variance within these models although they are significant in three instances shown in the above table, and they suggests that in medium level secondary schools there is a significant, albeit small ‘NET effect’ in students’ speaking improvement as measured by the instruments used in this research and similarly a significant but small ‘NET effect’ in F 4,5 low level schools.
In general, the students' exposure to NET teachers as shown in \( t_{cls} \) and \( t_{cls2} \) only has a negligible influence on oral assessment score in 2\(^{nd}\) administration, with \( \beta \) values ranging from -0.0171 to +0.167. The students' oral assessment score in 1\(^{st}\) administration has a large, positive influence on oral assessment score in 2\(^{nd}\) administration, with \( \beta \) values ranging from +0.311 to +0.564.

(ii) 2\(^{nd}\) cohort group

<table>
<thead>
<tr>
<th>Form</th>
<th>School Band</th>
<th>Regression Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>High</td>
<td>( oral_2 = 11.898 + 0.527 \cdot oral_1 - 0.0177 \cdot t_{cls} + \varepsilon )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((oral_1) p-value &lt; 0.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((t_{cls}) p-value &lt; 0.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Model adjusted ( R^2 ) = 0.468</td>
</tr>
<tr>
<td>F1</td>
<td>Medium</td>
<td>( oral_2 = 6.324 + 0.737 \cdot oral_1 - 0.00397 \cdot t_{cls} + \varepsilon )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((oral_1) p-value &lt; 0.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((t_{cls}) p-value = 0.17)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Model adjusted ( R^2 ) = 0.538</td>
</tr>
<tr>
<td>F1</td>
<td>Low</td>
<td>( oral_2 = 1.292 + 0.545 \cdot oral_1 + 0.08211 \cdot t_{cls} + \varepsilon )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((oral_1) p-value &lt; 0.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((t_{cls}) p-value = 0.074)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Model adjusted ( R^2 ) = 0.581</td>
</tr>
<tr>
<td>F3</td>
<td>High</td>
<td>( oral_2 = 7.075 + 0.658 \cdot oral_1 + 0.002171 \cdot t_{cls} + \varepsilon )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((oral_1) p-value &lt; 0.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((t_{cls}) p-value = 0.567)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Model adjusted ( R^2 ) = 0.554</td>
</tr>
<tr>
<td>F3</td>
<td>Medium</td>
<td>( oral_2 = 9.504 + 0.548 \cdot oral_1 - 0.000909 \cdot t_{cls} + \varepsilon )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((oral_1) p-value &lt; 0.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((t_{cls}) p-value = 0.815)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Model adjusted ( R^2 ) = 0.303</td>
</tr>
<tr>
<td>F3</td>
<td>Low</td>
<td>( oral_2 = 6.686 + 0.756 \cdot oral_1 - 0.00759 \cdot t_{cls} + \varepsilon )</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((oral_1) p-value &lt; 0.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>((t_{cls}) p-value = 0.815)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Model adjusted ( R^2 ) = 0.515</td>
</tr>
</tbody>
</table>

In all of the above models, it can be seen that the first administration of the oral assessment (\(oral_1\)) is a good predictor of the second administration (\(oral_2\)). However, the amount of exposure to the NET teacher over a given period (\(t_{cls}\)) does not show significant effect on the oral assessment score in 2\(^{nd}\) administration, except for the form one students in high level school. These results suggests that at lower secondary level the 'NET effect' is negligible in terms of oral proficiency and at F1 it may even be slightly negative: (F1, High Band) \(-0.0177\), (\( p=0.000\)). However, the results do not contradict the existing literature, which suggests that there is a slight fall in English language proficiency (as well as in other subject areas) in the first year of secondary schooling. This, it is posited, is due in part to the sudden change to teaching through the English medium, at least in higher band schools, as well as to other social and educational changes experienced by F1 students (e.g. individual subject teachers).
In general, the predictor variables \( oral1 \) and \( tscls \) in the above models can only account for between 30.3\% and 58.1\% of the total variance in \( oral2 \) scores. The \( \beta \) values clearly show that of the two predictors \( oral1 \) has a large, positive influence on \( oral2 \) with value ranging from +0.756 to +0.527, while \( tscls \) has only a negligible influence on \( oral2 \) with \( \beta \) values ranging from \(-0.009\) to \(+0.08\).

### 6.2.6 Follow-up research and analysis

Four items of further analysis are suggested in order to consolidate the findings of the analysis of primary assessment scores.

- Rasch Scale Modelling on oral assessment scores. The data analysis referred to in this section of the report was carried out using students' raw assessment scores. It is felt that a scaled, calibrated ruler would be more sensitive and likely to lead to clearer trends and patterns with regard to the 'NET effect' on students' oral/aural assessment scores. In addition, Rasch scaling would offer a more robust measure from which further analysis such as regression modelling and multi-level modelling could more reliably be undertaken.

- Inter-rater reliability study on oral assessors. Although the Cronbach Alpha scores suggest that the assessment instruments developed have good internal consistency, the inter-rater reliability of the oral assessment scores has not been calculated. Informal evidence, based on the second stage analysis exercise reported in section 6.2.2.7 below, suggests the assessment scores so far obtained have good inter and intra-rater reliability but the post hoc inter-rater reliability study will allow us to have more confidence in this area.

- To date, only a limited amount of regression modelling has been conducted, using raw assessment scores. More in-depth modelling would lead to a better understanding of the effect of the many different variables on these scores. The aim here would be to account for as much of the total variance as possible in comparing the first and second assessment scores.

- Multi Level Modelling on oral assessment scores. This will help determine the most significant variables and will help the researchers to explain as much of the noted variance as possible. Preliminary multi level modelling studies (not included in this report) suggest that by far the biggest factor in accounting for the difference in variance is the school itself, rather than the extent to which the students concerned have been exposed to the NET teacher. It is felt that multi-level modelling of Rasch calibrated assessment scores will lead to a better understanding of these factors.

### 6.2.7 Second Stage Analysis of Primary and Secondary Oral Assessment

This section reports on an experimental investigation of the oral assessment data using fine tuned analysis of productivity measures and qualitative measures employed in the field of language development and disability.

#### 6.2.7.1 Review of First Stage Analysis

The oral interview was designed to elicit language samples in a relatively unconstrained situation. At the secondary level, paired interviews were conducted to encourage peer interaction. Guided by the interlocutor who had established rapport with the pupils, representative samples of their spontaneous language were obtained and of their functional
communication given semi-structured tasks that gradually transitioned into natural conversation. These were based on picture descriptions and conversation on topics relating the pictures to themselves and other related personal topics. This is referred to as the first stage oral assessment, and the procedures for this stage are described in section 6.1.2.

The first stage oral assessment analysis was used to identify gains in competence in the use of language falling into the following categories for both Primary and Secondary level students: Listening Comprehension, Communication or Communicative Ability, Pronunciation, Grammatical Accuracy and Fluency/Productivity. There were additional variables at the Secondary level, namely, Vocabulary and at the primary level, Oral Reading which provided another means besides spontaneous speech to gauge some of the skills assessed in cases where insufficient spontaneous language was obtained.

While inferences can be drawn from the criterion-referenced proficiency scales of the first stage analysis of oral assessments about the level of oral proficiency pupils have attained, the first stage oral assessment instruments were proficiency-based and as such may not have been sufficiently sensitive to allow gains to be identified over the one- and two-year periods under investigation. For this reason, a second stage analysis was conducted on a sub-sample of the transcribed oral interviews in an experimental approach designed to determine whether proficiency gains could be identified by means of a finer-tuned analysis using some of the measures from the field of psychological assessment.

For the second stage analysis, selected interviews were transcribed and the written transcripts analysed for productivity and grammatical accuracy.

**6.2.7.2 Variables Studied in the 2nd Stage Analysis**

The detailed analysis of Productivity and Grammatical Accuracy was made based on thirteen variables comprising eleven for productivity and two for grammatical accuracy (see variables 10 & 13 below). Since the interviews were carried out individually at the primary level and are therefore not as conducive to the elicitation of questions from the students, only ten variables were used (omitting those secondary variables concerned with student generated questions).

Also, four of the variables (1, 6, 8, 11) were time dependent. The length of the oral interviews could vary although clear guidelines were provided. An assessor determined to give students a better chance to provide a representative sample of their performance could extend the interview accordingly. There were also instances of assessors who were less patient and encouraging and tended to end the interview as soon as the procedures had been completed. These four productivity measures were therefore treated with caution. Measures marked in bold type below were felt to be more stable because they involved simple quantification and were therefore more objective.

The thirteen variables are listed below, namely:

1. Number of Utterances
2. Mean Length of Utterance
3. Median
4. Max Length of Utterance
5. Max Length of Turn

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6.2.7.3 Sampling for Second Stage Analysis

(A) Sampling Criteria

The students selected for second stage analysis comprised 5% of all students, referred to as the Core Group, who had completed the oral assessment and attitude questionnaire surveys.

(i) Secondary

Out of the core group of one thousand four hundred students, seventy-two were selected for second stage analysis from the first administration. However, data was only available for sixty-five of these students in the second administration. Data analysis for comparison between the first and second administration was therefore based on available data for these sixty-five students.

Stratified random sampling from the first administration was employed for the selection of students for second stage analysis. A total of six schools – two from each of the three ability levels were selected. From each of these the following numbers of students were obtained:

<table>
<thead>
<tr>
<th>School Level</th>
<th>No. of Schools</th>
<th>No. of students/English Ability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>High</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Medium</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>24</td>
</tr>
</tbody>
</table>

The small numbers in each cell made analysis on the basis of student ability and school level ability difficult. Another consideration in sampling, however, was the teaching mode categories of the students. It was possible to select approximately equal numbers of students in the three major groups used for analysis of the Core Group – those taught by a NET, those taught by a LOCAL teacher and those taught by BOTH.
Due to time constraints, and the much smaller main sample of primary level students, only small numbers of student language samples were used for second Stage Analysis.

<table>
<thead>
<tr>
<th></th>
<th>No. of Schools</th>
<th>No. of students/English Ability level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Medium</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

At both primary and secondary level, students were assumed to be generally representative of the particular ability level of the schools from which they were drawn since they had been sampled from the medium level class of the particular form or class level from each school before they were identified as the either “H”, “M” or “L” within those classes.

Only Students from the First Cohort were used for this second stage analysis due to the wider time span between the two administrations and hence the greater likelihood of a language effect being found.

The sampling for the second stage analysis is as follow:

Samples for 2nd Stage Analysis

<table>
<thead>
<tr>
<th>1st Administration Secondary</th>
<th>No. of samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 - NET</td>
<td>33 students</td>
</tr>
<tr>
<td>Group 2 - Local</td>
<td>39 students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd Administration Secondary</th>
<th>No. of samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 - NET → NET</td>
<td>22 students</td>
</tr>
<tr>
<td>Group 2 - NET → Local</td>
<td>7 students</td>
</tr>
<tr>
<td>Group 3 - Local → NET</td>
<td>20 students</td>
</tr>
<tr>
<td>Group 4 - Local → Local</td>
<td>17 students</td>
</tr>
</tbody>
</table>

6.2.7.4 Preparation of Scripts for Second Stage Analysis

(A) Recruitment and training of transcribers

There was no shortage of availability of transcribers. However, unexpectedly, there was a shortage of consistently fast and high quality transcribers who were available long term. Local ESL speakers with a good background in English were often available but not up to the required level of fine-tuned listening and meticulous transcribing necessary for in-depth analysis for phonological, morphological and syntactical analysis of these ESL language samples. Native speakers were better at listening for these errors but might miss some of the
“Chinglish” features in vocabulary use. This resulted in the labour intensive task of re-editing and revising of transcripts by the core group of investigators prior to the marking of scripts.

(B) Criteria and Definitions

The Productivity measures were based on word, utterance and clause units. The Grammatical Accuracy measures were based on clause units.

The word count was based on intelligible legitimate words. Compound words were considered as one word and some two-word combinations were considered as one word where one would lose its meaning without the other, e.g., ice cream. Contractions were considered as two words. The utterance was defined as a single communicative unit. An utterance could be a series of words where it is unaffected by the presence of an interruption and continued into the next turn. Marking of scripts was based on the logical separation of utterances based on the above criteria - a combination of intended thought unit, logical meaning, and breath pause - in descending order of importance.

Maximum length of utterance was defined as the utterance with the greatest number of words per interview per speaker. The clause was the unit on which grammatical accuracy was based. Only clauses were selected to be rated as grammatically correct statements or questions. The clause was defined as a series of two or more words that contained an explicit verb.

A turn was defined as an uninterrupted series of utterances by the same speaker. Maximum length of turn was defined as the turn with the greatest number of words per interview for that speaker. Inter-rater reliability in the application of these criteria was addressed by means of moderation meetings during which selected transcripts were jointly analysed and the coding agreed by all members of the team.

6.2.7.5 Correlation Analysis between 1st and 2nd Stage variables

The second stage analysis was an experimental procedure with a large number of variables being employed initially with the intention of narrowing down the variables of interest by identifying those which were most sensitive to differences in language gain between different groups of students.

It was decided to out a 2nd stage analysis in the 1st cohort oral assessment. The process involved transcribing student interviews completed by NETs & NNETs and an exploratory sample representing 2% of first stage data was selected for analysis. In order to understand the relationship between the 1st and 2nd stage data, correlation analysis was performed between the second stage variables and first stage total holistic scores.

Total scores on the holistic scales (L_TOT in the matrix) were correlated with seven variables, namely all of the productivity measures and none of those dealing with grammatical accuracy.

1. Mean Length of Utterance
2. Max Length of Utterance
3. Max Length of Turn
4. Number of Attempted Clauses
5. % of Utterances that are Clauses
6. Number of Attempted Statements
7. Number of Attempted Questions

Of the accuracy measures, only Percentage of Statements which are Grammatically Accurate (GA_AS) has a weak correlation with total scores on the holistic scales.

6.2.7.6 Objective and Methodology

Despite the fact that six out of the 2nd stage thirteen variables did not show significant correlation with 1st stage total holistic scores in the above inter-correlation matrix, further analysis was performed on all thirteen variables in order to address four questions:

1. Which variable in the 1st Administration shows a significant difference between the two groups?
   Comparisons were made between teaching mode groups (NET and Local) to find out any significant difference within the 1st administration for each variable. Independent t-tests and the Mann Whitney test were used.

2. Which variable shows a significant difference among the four groups in the 2nd Administration?
   One-way ANOVA and Kruskal Wallis tests were used to explore differences between the four teaching class mode groups in the second administration.

3. Which variable shows a significant difference among the four groups in the 2nd administration, controlling the 1st administration values?
   One-way ANCOVA was used to measure the differences stated in question No.2 more accurately as the 1st administration values were included in the statistical model to reduce the random variation of 2nd administration dependent variable.

4. Which variable is significantly correlated between the two administrations?
   Correlation Analysis was used to identify relationships on individual variable between 1st and 2nd administration data.

5. Which variable shows a significant difference (gain or loss) between the two administrations?
   Paired sample t-tests were used to identify significant differences in assessment results per variable between the two administrations.
6.2.7.7 Findings

(A) Secondary Schools

(i) 1st Administration - Inter-teaching Mode Group Comparison

The sample size for NET and NNET is 33 and 39, respectively. Significant difference was indicated for three variables on the first administration: Max Length of Turn (NET > Local), % of Clauses that are Statements (Local > NET) and % of Clauses that are Questions (NET > Local) using non-parametric testing – Mann-Whitney Test. These are all indicators for productivity. However, teaching mode effect is not consistent.

(ii) 2nd Administration - Inter-teaching Mode Group Comparison

Significant difference was found on both Parametric (ANOVA) and Non-Parametric testing (Kruskal Wallis Test) for at least one of the teacher groups for the variable % Grammatical Accuracy of Attempted Statements – Gp 3 > Gp 4 according to one-way ANOVA and Kruskall Wallis; and Gp2 > Gp 4 according to Kruskall Wallis. Here there is some indication that those students exposed to both NET and Local teachers had a higher percentage of grammatical accuracy for attempted statements than those exposed to Local teachers alone.

(iii) 2nd Administration - Inter-teaching Mode Group Comparison with 1st administration values controlled

In ANCOVA, significant difference is found between groups on the variable % Grammatical Accuracy of Statements (ga_as2), using LSD method in paired comparison (since only 3 groups exist). Students taught by teachers with a transition from NET to Local elicited more correct clauses than those with a transition from NET to NET.

Results of (i) to (iii) are summarised in the following table.
### Secondary: 1st & 2nd adm.; Parametric and Non-parametric tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>1st Administration - Comparison between NET and Local</th>
<th>2nd Administration - Comparison between 4 Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Independent T-Test</td>
<td>Mann-Whitney</td>
</tr>
<tr>
<td>Number of Utterance</td>
<td>levene</td>
<td>p-value</td>
</tr>
<tr>
<td>Mean length of Utterance</td>
<td>0.06</td>
<td>0.69</td>
</tr>
<tr>
<td>Median</td>
<td>0.89</td>
<td>0.58</td>
</tr>
<tr>
<td>Max Length of Utterance</td>
<td>0.83</td>
<td>0.73</td>
</tr>
<tr>
<td>Max Length of Turn</td>
<td>0.73</td>
<td>0.13</td>
</tr>
<tr>
<td>No. of Attempted Clauses</td>
<td>0.60</td>
<td>0.10</td>
</tr>
<tr>
<td>% of Utterances that are clauses</td>
<td>0.05</td>
<td>0.89</td>
</tr>
<tr>
<td>Number of Attempted Statements</td>
<td>0.03*</td>
<td>0.67</td>
</tr>
<tr>
<td>% of Clauses that are Statements</td>
<td>0.16</td>
<td>0.08</td>
</tr>
<tr>
<td>% Grammatical Accuracy of Statements</td>
<td>0.27</td>
<td>0.97</td>
</tr>
<tr>
<td>Number of Attempted Questions</td>
<td>0.40</td>
<td>0.10</td>
</tr>
<tr>
<td>% of Clauses that are Questions</td>
<td>0.16</td>
<td>0.08</td>
</tr>
<tr>
<td>Grammatical Accuracy of Questions</td>
<td>0.83</td>
<td>0.25</td>
</tr>
</tbody>
</table>

1 = N>\bar{N}; 2 = N>L_1; 3 = L>\bar{N}; 4 = L>L

ANOVA \(\alpha = 0.05\%\) (6 paired comparison from 4 groups)

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(iv) **Variables with Significant correlation between the 2 administrations**

Correlation of the thirteen variables between 1st and 2nd Administration shows the following 7 variables to be significantly correlated in some teaching mode class groups:

1. Number of Utterance
2. Mean Length of Utterance
3. Median
4. Max Length of Utterance
6. Number of Attempted Clauses
8. Number of Attempted Statements
11. Number of Attempted Questions

These results are summarised in the table below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample = 22</td>
<td>Sample = 7</td>
<td>Sample = 20</td>
<td>Sample = 17</td>
</tr>
<tr>
<td>1. Number of Utterance</td>
<td>0.55</td>
<td>&lt;0.01*</td>
<td>0.82</td>
<td>0.14</td>
</tr>
<tr>
<td>2. Mean Length of Utterance</td>
<td>0.81</td>
<td>&lt;0.01*</td>
<td>0.46</td>
<td>0.29</td>
</tr>
<tr>
<td>3. Median length of Utterance</td>
<td>0.07</td>
<td>0.77</td>
<td>0.61</td>
<td>0.14</td>
</tr>
<tr>
<td>4. Max Length of Utterance</td>
<td>0.58</td>
<td>&lt;0.01*</td>
<td>0.56</td>
<td>0.19</td>
</tr>
<tr>
<td>5. Max Length of Turn</td>
<td>0.15</td>
<td>0.50</td>
<td>-0.18</td>
<td>0.69</td>
</tr>
<tr>
<td>6. Number of Attempted Clauses</td>
<td>0.59</td>
<td>&lt;0.01*</td>
<td>0.67</td>
<td>0.10</td>
</tr>
<tr>
<td>7. % of Utterances that are Clauses</td>
<td>0.24</td>
<td>0.27</td>
<td>0.51</td>
<td>0.24</td>
</tr>
<tr>
<td>8. Number of Attempted Statements</td>
<td>0.61</td>
<td>&lt;0.01*</td>
<td>0.61</td>
<td>0.15</td>
</tr>
<tr>
<td>9. % of Clauses that are Statements</td>
<td>0.22</td>
<td>0.31</td>
<td>0.05</td>
<td>0.31</td>
</tr>
<tr>
<td>10. % Grammatical Accuracy of Statements</td>
<td>-0.07</td>
<td>0.77</td>
<td>-0.48</td>
<td>0.27</td>
</tr>
<tr>
<td>11. Number of Attempted Questions</td>
<td>0.16</td>
<td>0.46</td>
<td>0.82</td>
<td>0.02*</td>
</tr>
<tr>
<td>12. % of Clauses that are Questions</td>
<td>0.22</td>
<td>0.31</td>
<td>0.05</td>
<td>0.91</td>
</tr>
<tr>
<td>13. % Grammatical Accuracy of Questions</td>
<td>0.32</td>
<td>0.14</td>
<td>0.88</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Notably the variable Mean Length of Utterance had significant correlation among three out of the four groups, (Group 1, 3, & 4) meaning that students' performance was most stable as measured by this variable between the first and second administration. Those who scored highly in the first administration also did so in the second administration. Their performance did not fluctuate wildly from the first to the second administration. Similarly, with the lower scores, the same positive correlation was shown for these seven variables. Except for one
variable #11, which has good correlation within one teaching mode class group, all other variables have good correlation in two teaching mode class groups. There were no variables that had any significant correlation within Group 2 which was also too small in sample size for the results to be reckoned with.

(v) Variables with significant difference between the 2 administrations - per each of 4 groups

Paired Sample t-test results show significant differences between the 1st and 2nd administration in the following 7 variables among the four groups of teaching class modes:

2. Mean Length of Utterance  
4. Max Length of Utterance  
8. Number of Attempted Statements  
9. % of Clauses that are Statements  
10. % Grammatical Accuracy of Statements  
11. Number of Attempted Questions  
12. % Grammatical Accuracy of Questions

The table on the next page summarises the results.
Secondary, 2nd admin.; Paired sample t-tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group 1</th>
<th></th>
<th>Group 2</th>
<th></th>
<th>Group 3</th>
<th></th>
<th>Group 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. er</td>
<td>p-val.</td>
<td>Mean</td>
<td>Std. er</td>
<td>p-val.</td>
<td>Mean</td>
<td>Std. er</td>
</tr>
<tr>
<td>1. Number of Utterance</td>
<td>-0.45</td>
<td>4.51</td>
<td>0.92</td>
<td>-2.57</td>
<td>6.84</td>
<td>0.72</td>
<td>-10.0</td>
<td>5.86</td>
</tr>
<tr>
<td>2. Mean length of Utterance</td>
<td>1.26</td>
<td>0.59</td>
<td>0.047*</td>
<td>1.49</td>
<td>0.57</td>
<td>0.04*</td>
<td>1.46</td>
<td>0.61</td>
</tr>
<tr>
<td>3. Median</td>
<td>12.0</td>
<td>3.61</td>
<td>&lt;0.01*</td>
<td>6.71</td>
<td>3.39</td>
<td>0.09</td>
<td>6.15</td>
<td>1.57</td>
</tr>
<tr>
<td>4. Max Length of Utterance</td>
<td>1.50</td>
<td>1.66</td>
<td>0.37</td>
<td>-2.57</td>
<td>2.86</td>
<td>0.40</td>
<td>2.25</td>
<td>2.77</td>
</tr>
<tr>
<td>5. Max Length of Turn</td>
<td>-20.9</td>
<td>4.95</td>
<td>&lt;0.01*</td>
<td>-17.7</td>
<td>13.3</td>
<td>0.23</td>
<td>17.6</td>
<td>14.21</td>
</tr>
<tr>
<td>6. Number of Attempted Clauses</td>
<td>4.27</td>
<td>2.29</td>
<td>0.07</td>
<td>-2.00</td>
<td>5.38</td>
<td>0.72</td>
<td>-3.30</td>
<td>2.74</td>
</tr>
<tr>
<td>7. % of Utterances that are clauses</td>
<td>62.0</td>
<td>5.10</td>
<td>&lt;0.01*</td>
<td>88.4</td>
<td>3.47</td>
<td>&lt;0.01*</td>
<td>61.9</td>
<td>5.59</td>
</tr>
<tr>
<td>8. Number of Attempted Statements</td>
<td>9.77</td>
<td>2.08</td>
<td>&lt;0.01*</td>
<td>-5.28</td>
<td>4.60</td>
<td>0.29</td>
<td>1.00</td>
<td>2.81</td>
</tr>
<tr>
<td>9. % of Clauses that are Statements</td>
<td>83.5</td>
<td>3.24</td>
<td>&lt;0.01*</td>
<td>91.8</td>
<td>3.65</td>
<td>&lt;0.01*</td>
<td>88.9</td>
<td>2.43</td>
</tr>
<tr>
<td>10. % Grammatical Accuracy of Statements</td>
<td>30.4</td>
<td>3.10</td>
<td>&lt;0.01*</td>
<td>40.6</td>
<td>5.68</td>
<td>&lt;0.01*</td>
<td>36.7</td>
<td>2.72</td>
</tr>
<tr>
<td>11. Number of Attempted Questions</td>
<td>-1.41</td>
<td>0.95</td>
<td>0.15</td>
<td>-4.28</td>
<td>1.52</td>
<td>&lt;0.01*</td>
<td>-1.35</td>
<td>0.84</td>
</tr>
<tr>
<td>12. % of Clauses that are Questions</td>
<td>15.5</td>
<td>3.24</td>
<td>&lt;0.01*</td>
<td>7.10</td>
<td>3.65</td>
<td>0.10</td>
<td>10.0</td>
<td>2.43</td>
</tr>
<tr>
<td>13. % Grammatical Accuracy of Questions</td>
<td>3.79</td>
<td>0.94</td>
<td>&lt;0.01*</td>
<td>3.42</td>
<td>2.29</td>
<td>0.18</td>
<td>4.12</td>
<td>1.22</td>
</tr>
</tbody>
</table>
There is gain in the top four listed variables and loss in the lower 3 listed. All the variables showing significant gain are from productivity variables: Mean Length of Utterance, Max Length of Utterance, Number of Attempted Statements and Percentage of Clause that are Statements. The variable Mean Length of Utterance is the strongest indicator of gain with this indicated for three out of four groups (NET → NET, Local → NET, and Local → Local). This also points to an indication that students' output has increased over time. However, this phenomenon is true of all groups of students—those with NET, those without NET exposure as well as those with both types of exposure.

With the exception of the number of questions for Group 2, all the other variables showing significant loss relate to grammatical accuracy of statements or questions. This may be related to the fact that grammatical accuracy decreases as productivity increases since students tend to speak more in time but may not have developed a parallel control for accuracy needed for language with a higher productivity. The loss shown in the number of attempted questions may also be related to the fact that asking questions is a comparatively more demanding task than making statements and students have shown improvement via more statements rather than in more questions.

**Summary**

In Summary, there are indicators of gains and losses among various different variables and among groups of different teaching mode between the first and second administration, as well as differences in baseline performance among groups within each administration. However, the results are rather scattered and show no clear cut significant difference that can be linked to all variables of productivity or grammatical accuracy or to a particular mode of teaching, whether NET only, Local only or both.

This lack of clear evidence of the comparative benefits of the NET exposure may actually reflect the fact that there is a host of multiple factors influencing language learning in ESL in the Hong Kong context. The mere exposure to a NET may not be a strong or sufficiently isolated independent variable to effect changes in language gain or loss when there are multiple changing factors related to at least three main categories of factors: NET characteristics in personality and teaching style, the curriculum with various degrees of flexibility and emphasis on oral language development as well as student characteristics in interest, motivation, degree of participation with the NET, previous language ability as well features of home and school environments that may or may not be conducive to ESL learning.
(B) Primary Schools

(i) Which variable is significantly correlated between the 2 administrations?

**Correlation Analysis of Variables**

*Primary: 2\textsuperscript{nd} admin.; Correlation tests*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Utterances</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean length of Utterance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Length of Utterance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Length of Turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Attempted Clauses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Utterances that are clauses</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Number of Attempted Statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Clauses that are Statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Grammatical Statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The correlation of the ten variables between 1\textsuperscript{st} and 2\textsuperscript{nd} Administration shows the following two variables to be significantly correlated by teaching mode groups: Mean Length of Utterance for Group 2 and % of Utterances that are Clauses for Group 4. These indicate that student performance is fairly stable and does not fluctuate wildly from the first to the second administration for these two variables.

(ii) Which variable shows a significant Difference between the 2 administrations - per each of 4 groups?

**Paired Sample t-test**

*Primary: 2\textsuperscript{nd} admin.; Paired sample t-test*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Utterances</td>
<td></td>
<td>-ive Loss</td>
<td></td>
<td>+ive Gain</td>
</tr>
<tr>
<td>Mean length of Utterance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>+ive Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Length of Utterance</td>
<td></td>
<td>-ive Loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Length of Turn</td>
<td></td>
<td>+ive Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Attempted Clauses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Utterances that are clauses</td>
<td>+ive Gain</td>
<td>+ive Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Attempted Statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Clauses that are Statements</td>
<td></td>
<td>+ive Gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Grammatical Statements</td>
<td>+ive Gain</td>
<td>+ive Gain</td>
<td></td>
<td>+ive Gain</td>
</tr>
</tbody>
</table>

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Paired Sample t-test results for the ten variables between 1st and 2nd Administration show significant gains or losses made among some teaching mode groups in the following variables.

Five variables show gain in Group 2 (NET->Local):

3. Median
4. Max Length of Utterance
7. % of Utterances that are Clauses
9. % of Clauses that are Statements
10. % Grammatical Accuracy of Statements

Two variables show a loss in Group 2:
1. Number of Utterance
5. Max Length of Turn

The results are quite scattered in that gain is shown for both productivity and grammatical accuracy variables but not for all of the concerned variables in each category. Loss is registered only in Group 2 where students are exposed to both NET and Local teachers. The strongest indicators would be the two variables - % of Utterances that are Clauses and % Grammatical Accuracy of Attempted Statements that show gain in all three groups (Group 1, 2, & 4).

(iii) 1st Administration - Inter-teaching Mode Group Comparison

No significant difference was found between NET and Local groups in all 10 variables in parametric or non-parametric testing.

(iv) 2nd Administration - Inter-teaching Mode Group Comparison

Significant differences via non-parametric testing (Kruskal Wallis) are indicated for two variables namely:

There is some evidence that students with exposure to only local teachers perform better in these two variables than students that are exposed to the NET only or to both in the Number of Utterances. Also in the variable % of Clauses that are Statements, there is evidence that students exposed to locals only perform better than students exposed to both. However, the NET only group also showed evidence that their students also performed better on this variable than the group exposed to both.

Summary

In Summary, findings from the primary results are similar to those for the secondary. There are indicators of gains and losses among various different variables and among groups of different teaching mode between the first and second administration, as well as differences in baseline performance among groups within the second administration for isolated variables. However, the results are rather scattered and show no clean cut significant difference that can be linked to all variables of productivity or grammatical accuracy or to a particular mode of teaching, whether NET only, Local only or both.
6.3 Limitations of Instruments and Project procedure

1. Other subtle changes e.g., increased interest or decreased apprehension in speaking to a native speaker, increased casual conversation outside of class or increased general listening comprehension of classroom language may not be measurable or tangible or sensitive to the measurement instruments used within the relatively short time frame of the study.

2. Both groups of students — those exposed to NETs and those who have not, show improvement over the investigation period.

3. There is no obvious superior effect resulting from exposure to the NETs within the time frame investigated and within the myriads of different conditions existing in the local schools.

4. In face of the improvement possible and effected by both local and NET teachers, it is felt that future attention ought to be focussed on the ingredients for success in ESL teaching and learning and perhaps not simply NET and NNET characteristics. Nevertheless, these latter may be translated into what the NET or NNET characteristics are that make ESL teaching and learning a success, assuming that there is a commonly accepted definition of success in language learning in the local ESL learning context.

5. It is difficult to gauge language gain due to the many intervening factors such as the varying length of exposure to the NET due to changes in NET deployment, the full or partial, active or inactive participation of the students, the quality and teaching style of the NETs concerned and the local teachers who may or may not be facilitative towards oral language development in their quest to meet other requirements of the current English curriculum.

6. These findings from the study may give a powerful wash back effect — to call attention to key players in systems changes that for any new scheme to work as part of reforming the teaching and learning of language in the HK schools, there needs to be a multiplicity of factors to be looked into and remediation measures to be implemented for effecting systemic changes and none may be possible within a certain time period without the parallel involvement of others.

Many assumptions have been made for language gain to occur prior to the implementation of the NET scheme. Some of these may not have been true and therefore may have been factors contributing to the lack of clear evidence of gain. For example, the productivity measure was predicted to also reflect changes in confidence level since Chinese pupils are reluctant to speak when they are uncertain of the accuracy of what they may say. However, this may not be true of those who remained indifferent, or shy or disinterested in oral interaction.

6.4 Recommendations

1. In view of the strict criteria for grammatical accuracy at this first stage of in-depth analysis which was performed for ease of data collection and marking, we may have missed some areas of improvement that may have been more discernible had we looked into particular and more basic features of grammatical structures, such as the presence of verbs and use of complete sentences.

2. In view of the above, a third stage analysis is recommended as an extended study to measure more accurately what slight or specific improvement there may be in the students over the
years of the NET scheme. Similarly, for gain in Grammatical Accuracy to show at this stage of these pupils' language proficiency development criteria for correctness need to be relaxed.

3. In view of the less than uniform style of oral assessors in interviewing skills which are paramount to the training of oral language development in students, it is recommended that teachers receive training in oral language development of students, in particularly in communicative styles with students conducive to oral language development.

4. In view of #3, for the sake of more consistent types of data collection with such a large sample of oral language sampling, it is recommended that a small core group of oral assessors receive intensive training and that administration of oral assessments be limited to these oral assessors. Care should be taken in the different training emphasis required of native speakers and non-native speaking oral assessors.
7 Case Study

Case study research methodology was used to help the evaluation team develop a greater understanding of the way NETs operated in specific schools during the period under investigation. Since the schools were selected to be broadly representative of the majority of schools, it was hoped that this understanding would contribute to a general understanding of the functioning of NETs at the school level. Three aspects in particular lend themselves to investigation through case study:

i. How the NETs function, socially and professionally, in the school contexts;
ii. How other key players (including the principal, local English teachers, local teachers of other subjects and students) in the school contexts react to the existence of the NETs, and how they could contribute to an effective implementation of the Scheme; and
iii. How the particular ecological contexts of schools in Hong Kong facilitate or hinder the most effective functioning of the NET Scheme.

Greater understanding of these three areas would assist in addressing research questions 2 and 3:

2. What is the nature of the teaching and learning approach adopted by NETs and how does it differ from that of local teachers in terms of:
   a. approach to and influence on the school syllabus?
   b. teaching, learning and assessment materials, methods and approaches adopted?

3. What are the effects of the introduction of NETs on the social and professional life of the school:
   How do NETs and local teachers collaborate and exchange expertise on professional issues such as developing the syllabus, production of instructional materials, organising extra-curricular activities, and management of students?

7.1 Profiles of Case Study Schools and Participants

Seven case study schools (two primary and five secondary) were identified based on the criteria employed in drawing up the main sample for the proficiency assessments and questionnaire surveys as explained in section 5.3.1 above. Please refer to Appendix II for detailed information about the case study schools.

The native speaking English teachers working in the case study schools comprised four Canadian, three British and one Australian teacher recruited according to the normal recruitment procedures and meeting the requirements of Government in terms of qualifications and experience. Detailed information about these NET participants in the case study is provided in Appendix IV.

7.2 Activities Undertaken During Case Study Visits

School visits were conducted in three rounds (each round lasting about one week) throughout the project period, at an interval of 4 to 12 months depending on specific situations. Research activities conducted during the visits included classroom observations, interviews with principals, teachers and students, and the collection of teaching documents. These activities are summarised in the Data Collection Record below.
### Case Study Data Collection Record

<table>
<thead>
<tr>
<th>School Code</th>
<th>First Round</th>
<th>Second Round</th>
<th>Third Round</th>
<th>Date of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>N: 19 lessons</td>
<td>N: 11 lessons</td>
<td>N: 16 lessons</td>
<td>1*: 10, 11, 12, 13, 16 Nov, 98</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L: 5 lessons</td>
<td></td>
<td>3*: 5-7, 10 May, 99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L: 6 lessons</td>
<td></td>
<td>3*: 16-18, 21, 23 Feb, 2000</td>
</tr>
<tr>
<td></td>
<td>L: 11 lessons</td>
<td>L: 2 lessons</td>
<td></td>
<td>2*: 19-23 Apr, 99</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3*: 1-4 Nov, 99</td>
</tr>
<tr>
<td></td>
<td>L: 19 lessons</td>
<td>L: 6 lessons</td>
<td>L: 4 lessons</td>
<td>2*: 5-7, 10 May, 99</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3*: 16-18, 21, 23 Feb, 2000</td>
</tr>
<tr>
<td>SD</td>
<td>N: 25 lessons</td>
<td>N: 17 lessons</td>
<td>N: 21 lessons</td>
<td>1*: 1-5 Feb, 99</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3*: 14-17 Feb, 2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3*: 25-28 Jan, 2000</td>
</tr>
<tr>
<td>SF</td>
<td>N: 8 lessons</td>
<td>N: 15 lessons</td>
<td>N: 10 lessons</td>
<td>1*: 23-30 Mar, 99</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3*: 31 May - 2 June, 2000</td>
</tr>
</tbody>
</table>

### Data Analysis of Case Study

#### 7.3 Sources of Data

Transcripts of interviews and classroom observations serve as the major source of data for the qualitative analysis of the cases, supplemented by field notes and teaching materials used during the lessons.

The interview data were transcribed and coded by hand. Transcripts were segmented and categorised under the following topics:

**Interviews with key school personnel**
- Recruitment procedures
- Duty allocation to the NET
- Effectiveness of induction programmes
- Staff socialisation and mutual support/collaboration
- School culture and English curriculum orientation
- The contribution of the NET to the English curriculum (both core and extra-curricular)
- Personal qualities of the NET
- Perceived NET impact on students

---

3 Lessons taught by the NET
4 Lessons taught by local English teachers
5 2 one-hour sessions of extra-curricular activities recorded.
6 2 one-hour sessions of extra-curricular activities recorded.
7 1 one-hour session of extra-curricular activities recorded.
8 1 one-hour session of extra-curricular activity recorded.
• Perceived NET impact on schools
• Suggestions for further improvement of the Scheme

*Interviews with students*
• Attitudes towards learning English
• Most and least favourite activities during English lessons
• Differences (in terms of the teachers’ teaching methods and their own classroom behaviours) between NET and local teachers
• Expected benefits from being taught by the NET
• General English learning strategies
• Major concerns about learning English

*Classroom Data*
Videos and transcripts of classroom teaching of both local teachers and NETs were viewed and analysed with the following focuses:
• Teachers’ ability to motivate students to use English for meaningful communication;
• Role distribution and realisation of local and NET in the cases of team teaching (in two of the schools - PA, SG (see Appendix II);
• Students’ behaviours (both verbal and non-verbal) during English lessons

7.3.2 Findings
In this section, we report and summarise significant findings from the three rounds of interviews and lesson observations from the seven case study schools. The seven case study schools are referred to by means of the codes which are explained in Appendix II.

7.3.2.1 NET Effects through the Eyes of the School Personnel

Almost all school personnel, principals and local teachers we have interviewed supported the introduction of the NET Scheme in their schools. The last round of case study visits gave the impression that the level of support seemed to have increased. However, due to individual differences and the mismatch of some individuals’ background, training and experiences with different schools’ needs and support system, the level of enthusiasm and degree of satisfaction varied dependent on the degree of success of the NET Scheme as carried out by that individual in that individual school.

Among all school personnel in our sampled schools, the principals were the most supportive of the NET Scheme. The principal of school SC expressed the view in his last interview that the NET scheme in his school might have had a greater and more positive impact had the NET been allocated to fewer or different classes or been endowed with different personality characteristics such as being more sociable, active or dynamic or had come with different experiences that would have more closely matched his school’s needs. As it was, the year to year adjustments made by the school had left the situation passable or “OK” but not highly satisfactory. However, this viewpoint was exceptional. None of the other principals interviewed showed any dissatisfaction over the performance of their NET. Most of them expressed high expectations of the NETs in many aspects. For example, the principal of SG (a practical school) had high hopes that the NET would bring in new insights and help to revamp the English curriculum to make it more suitable to the needs of the students. The school head of
PB (a primary school with high ability students) made lots of compliments about the NET's contribution to teaching innovations such as drama and creative writing. She thought that local English teachers would have difficulty in matching the NET's contributions because no matter how hard they tried, they were constrained by their former English learning experience which tended to be traditional and conservative. She was very proud of her success in utilising the NET. However, she took care to point out that the NET in her school could use her expertise to its full play because of the inherently favourable English learning environment of the school. She doubted very much the likelihood of success for the Scheme in low banding secondary schools and hinted that it might be a waste of resources. She called for an extension of the Scheme to primary schools like hers.

The enthusiasm of other local teachers was comparatively less intense than that of the principals. While most teachers interviewed supported the Scheme and believed the NETs could bring about some improvement in students' oral and listening abilities, they had reservations about the extent of effects one NET could produce among the one thousand students in the school. Like the principals, some local teachers speculated that the situation might be better if there were two NETs.

A few local English teachers expressed some discontent over the school system — mainly in terms of the heavy workload and lack of professional development opportunities which had created obstacles for them to function effectively as English teachers. For example, some primary teachers (PB) said that they had to teach many Chinese subjects, thus weakening their image as English teachers. Many other primary and secondary teachers also said that they were burdened with administrative duties, which the NETs did not need to take up, and had no time or energy to explore innovative ideas in teaching.

At least two panel chairs (SD, SF) from medium to low ability schools in our sample expressed concerns about fairness in class allocation. Since NETs teaching low ability students did have more class discipline and management problems than local teachers, measures were taken to assign the relatively better classes to the NETs. Even though most local teachers interviewed agreed in principle that weak students would not benefit from NET teaching as well as the better students, the allocation of only good classes to the NET was commented upon as a possible bone of contention if it were done on a long-term basis as most teachers would gain less satisfaction or enjoyment from teaching low ability and poorly behaved students.

Despite such reservations, most teachers recognised the unique contributions made by the NETs. For example, most NETs played an essential role in establishing, resourcing and managing the English Corner in the school. NETs have helped coach students to take part in several inter-school language-related competitions (drama, speech festival, etc.) and some have obtained several major prizes. The panel chair in SF mentioned how the NET had made her presence and effects increasingly noticeable by leading assemblies and introducing English culture through extra-curricular activities. She said that without the support and presence of the NET, some of these activities might not have been realised.

To summarize, attitudes of school personnel towards NET effects were in general positive. Among them, the principals and non-English local teachers were particularly more positive than local English teachers. Most principals expressed great expectations on the prospective roles of the NETs in upgrading the quality of English learning and teaching in their schools. More local non-English teachers than English teachers believe that the NETs will bring about noticeable changes to the students' English standards. Local English teachers, while generally
agreeing that the NETs have brought with them useful resources, tended to be less optimistic about the significant effects of the NETs and noticed more of the limitations of one NET against the whole school of students, as well as the adaptation problems of the NETs.

7.3.2.2 NET Effects through the Eyes of the NETs

The seven case study schools differed in a number of aspects including school culture and background and the nature and ability of students taught. Naturally, therefore, the NETs in our sample had different experiences in different schools. In general, all NETs, except the ones in PB and SD, had expressed a more-bitter-than-sweet feeling towards their job. Details will be discussed in the next few paragraphs.

(A) Aspects of NET satisfaction

The NETs in PB and SD were the only two who had expressed a higher degree of contentedness with the job. The nature of the students in the two schools was actually worlds apart in which PB is a prestigious primary school with mainly upper ability and socio-economic class students (please refer to 7.3.2.7 for details) while SD is situated in an industrial area in the New Territories admitting mainly students from low ability bands. Despite that, both NETs said that they liked their students. It is important to note that the NET in SD felt a bit unhappy in her first year for having to teach a remedial class. However, towards the end of the study, she told our fieldworker that she enjoyed teaching the remedial class more because she could see marked increase in the students' attempts to use English through the teasing and playful barbs which always appeared during the lessons. From our observations, we found that PB and SD shared one thing in common -- both have a principal who had strong administrative and academic leadership, was well-respected by most local teachers, and highly supportive of curriculum innovations.

(B) Reasons for NET dissatisfaction

One NET left the school (SG) after one year and three NETs (PB, SC and SE) left the Scheme at the end of their two-year contracts. These NETs left their jobs despite the fact that their respective principals have expressed the intention of renewing their contracts. The reasons for not wishing to continue were generally personal, including feelings of homesickness; frustration at the unruly behaviour and disinterested attitude towards English of the students they were assigned to teach; lack of sufficient personal development opportunities; reduction of material benefits in the second contract; and lack of a sense of belonging due to cultural differences and interpersonal disharmonies in the work contexts. A major factor attracting NETs to take up the job was financial (SC, PA) but this was not sufficient justification for some to renew the contract. Three of the NETs who had left, except the NET in PB, had experienced some setbacks in their workplace. All three had experienced different degrees of relationship problems with their students. From our interview findings and observations, reasons for these relationship problems include (1) resistance from the students to the NET's lack of public exam knowledge and non-exam-oriented teaching style (SE); (2) personality and culture clashes between the NETs and the students (SC and SG).
Constraints of the Hong Kong school system

In general, even though most NETs were certain and confident about their positive influence on the students, all NETs we have interviewed (except for the one in PB) expressed their frustrations over the education system and certain characteristics of some of their students. These included poor motivation in learning English, high exam-orientatedness, and poor discipline. The NET in SF criticised the large class size which, in her opinion, militated against the effective conduct of the communicative activities she felt to be conducive to language learning. The NET in SC furthermore felt that the large class size had led to poor student-teacher relationships in the classroom. While most appreciated the support from other teachers and the administration, they felt that by being the only NET in the school, their effects had been too thinly spread. Interview findings and observations suggest that there is often less NET effect on the school than school effect on the NET. For example, the NET in SC reported how she found adopting the text-based curriculum and strict disciplinary style of the local teachers (e.g. taking away disciplinary marks from students) the best solution in teaching large full classes. She thought it might be a good idea to follow some local teachers' practice of punishing students by asking them to copy English sentences several dozens of times. She felt that students in her schools were only used to fear and punishment as a motivator to good behaviour and she could only conform to this culture to avoid having a hard time. The NET in SF also admitted that due to large class size and the poor discipline of some students, she very often had to get through the lessons with activities that only generate highly teacher-controlled language production from the students.

The Language Barrier

NETs who have experienced frustrating student discipline problems tended to attribute the major cause of the deteriorating classroom order to their lack of Cantonese knowledge. When problems arose, they could not communicate with the students in any subtle way due to the language gap between themselves and the students. However, most NETs did not think they would learn Cantonese in any serious manner even though they agreed that it was a good idea to do so. The reasons for this were that Cantonese was considered difficult and they did not have time to practise it up to a reasonable level at which they would be able to communicate with their students. Nevertheless, from our observations, the NET in PA was picking up Cantonese from their students and minor staff in the schools. Most students were amused by the occasional display of Cantonese by the NETs in SC and PA.

Handling discipline problems

When asked about the suitability of NETs to teach low-ability students, the NET in SF highlighted the problem not of ability, but of behaviour. She and the NET in SG (who left after one year) both expressed feelings of great frustration and being worn out as a result of having to handle students who intentionally behaved in a disruptive way. These teachers expressed helplessness - there was nothing they could do to change the situation. Their unpleasant experience with the rowdy students affected their performance in teaching other students as they were exhausted and worn out after dealing with the unruly classes. In our second year of visit, the NET in SF found one of her regular classes to be so difficult to handle that the panel chair had to take up the teaching of the worst group, leaving only the more "reasonable" ones for the NET. Some of those "unruly" students later told us in an interview that they could not help being mischievous and disruptive because they really could not understand a word said by the NET and they felt that the NET did not make any effort to address their difficulties. The
lessons with the NET were extremely boring. These students told us that they were very happy with their learning in the local teacher's class because the local teacher could share their fun and joke with them in a language they understood. They thought that they were learning more English from the local teacher. The other side of the story from the NET revealed that she did have tried to introduce some fun activities with that class at the beginning of the term, but the rowdy behaviour of almost the whole class had scared her. The NET and a few other locals felt that it was a waste of time for a NET to teach students with no motivation (not "low ability" though these are usually related) to learn English at all.

On the other hand, the new NET in SG (a practical school admitting students with behavioural problems) seemed to be handling the discipline problems better. In the NET opinion, NETs could work with low-ability students if the NETs were well-informed of the nature of the students before taking up the job and if local and NETs could practise effective team-teaching. From our observations, we found that the new NET in SG, by projecting a motherly figure, seemed to be better-received by the students than the previous one who might have appeared to be too arrogant and superior to the students.

In general, the NETs in our case study schools felt contented with the effects they had produced on students who were motivated in learning. Whether these students had high English ability is not the most important. Most of the NETs were of the opinion that due to many external constraints such as large class size, oral-only duty allocation, exam-oriented school tradition, the NET effects on students’ English development were very much reduced.

7.3.2.3 NET Effects through the Eyes of the Students

Students' opinions on the NET Scheme were more diverse but interesting. The general pattern seemed to be that NETs were better received by primary students than by secondary students.

(A) Positive primary NET experiences

Almost all primary pupils interviewed liked to have lessons with their NETs because the lessons were enjoyable and involved lots of games. This was especially true of pupils in PB who expressed great disappointment over not having the NET as their English teacher in the second year of our visit. They even prophesised a decline in their English standard under the hands of the local teachers and most were paying to hire private native English speakers to upgrade their English for fear that they would lag behind students taught by the NET. In PA, the lower primary pupils just could not stop laughing whenever they mentioned the NET. They described their NET as one whose lessons were always enjoyable and who was less forbidding than some of their local teachers. Even though most students did not favour the idea of having only the NET to teach them due to potential communication difficulties, most of the junior pupils wanted more NET lessons. It is interesting to note that during the last interview, some P3 students took the initiative to report their interaction with the NET in English.

Comparatively speaking, the upper primary students interviewed in PA expressed more difficulty in understanding the NET and had more reservations about being taught by the NET than the lower primary students. Nevertheless, the P5 group we interviewed said they still loved to be taught by the NET because the local teacher was very strict with them.
Secondary Students' Views

To win the hearts of the secondary students seemed to be more difficult. Contrary to research findings which reported that higher English ability students would welcome the teaching of the NETs more (Lu and Wong, 1991), many higher form students of the only high banding school (SE) in our sample expressed their grievances in the interviews over being taught by the NET in their crucial public exam preparation years. They did not deny that the NET was very nice and friendly. However, in their view, the fact that she lacked experience and understanding of the requirements of the Form 7 Use of English public exam should have disqualified her from being their teacher. The students expressed strong reaction against the school’s arrangement to use them as 'guinea pigs' to test out the effectiveness of the Scheme. They made it clear to our fieldworker that the NET Scheme may be good for junior forms, but not for classes under exam pressure because what they need was skills and knowledge to pass exams, and not just fun and games.

The same group of students (SE) also commented on the insensitivity of the NET to their learning difficulties. They said the NET always had unrealistic expectations of their performance and made high demands on their language accuracy. But on the other hand, she failed to teach them the exam skills the experienced local teacher taught to their neighbouring class. They explicitly expressed a wish not to be taught by the NET in the coming year. On the other hand, the attitude of students in the junior forms in the same school towards the NET was more positive, though some said that they did not want this NET to teach them next year because she had given them lots of writing tasks to do and they heard that the number would increase as they proceeded to the higher forms.

Another group of F6 students in a middle banding school (SF) who were taught by the NET for one oral lesson every cycle welcomed the teaching of the NET for a small percentage of their English lessons but still thought that local teachers who understand the exam syllabus better should be the chief persons to help them through the public exam. A few of these students expressed difficulties in understanding the NET when more abstract concepts were handled and complex structures were used.

The most prominent and prevalent view about the NETs from students in middle and lower banding schools in our sample was that the NETs were difficult to communicate with because they did not understand and speak Cantonese. Therefore, while most students we have interviewed acknowledged the fact that their listening skills and confidence in speaking seemed to have some improvement and that the NETs had a list of merits (such as having more accurate and standard pronunciation, more accurate grammar, being more friendly, and more game-oriented in teaching), they would prefer to have a local teacher to do most of their teaching so that when they had problems, they could ask about them in L1. Some students in SF said that if their NET could understand Cantonese, they would like her lessons much better.

The majority of students (PA, PB, SD, SE, SG) found the NETs' lessons more activity-based and therefore more enjoyable. There are some interesting exceptions among F2 students in SF who thought that their local teachers' English lessons were more enjoyable than those of the NET, because the local teachers knew how to joke with them in L1. In the NETs' lessons, they could only make fun among themselves because most of the time, they had little idea of what the NET was doing.
Students in SC explained that they had to do a lot of free writing, newspaper reading or text-based exercises mainly on their own without much explanation or concrete feedback from the NET. These negative perceptions were not shared by all students in these classes. A few students from the same F2 class in SC preferred the teaching of the NET. They said that even though they had some difficulties with understanding the NET at the beginning, they had later overcome the problem because the NET would try to use simpler words and illustrations to get her meanings across and give clarifications to individual students who asked questions. They also said that they were quite used to having English lessons taught in English, as this was the practice in their former primary schools.

The majority of the students interviewed felt that it was more natural to communicate in English with the NET than with the local teachers. Unless the latter made it a rule for them to do so, the students said that they seldom took the initiative to speak to the local teachers in English. A similar mentality was shared by a few students of higher English proficiency from SC. They preferred the teaching of the NET because they felt that the NET provided a better model of 'native-sounding' English.

A small number of students focused on the complementary qualities of the local and NET teachers. These included the F.6 students from SF who preferred to have the NET teach a small percentage of their English lessons. A few students from a good class in SD expressed the view that the NET should concentrate on teaching listening while the local teachers should handle the other skills (including oral) because in their opinion, the value of the NET lay in providing a standard model for them to listen to, whereas the local teachers seemed to be more skilful in explaining grammar.

7.3.2.4 NET Effects in the Classroom

Analysis of the classroom video data and student interview data has identified evidence illustrating (A) factors affecting student participation in the classroom, (B) classroom instances of non-optimal use of NETs, and (C) the unique impact of the NETs.

(A) Factors affecting classroom learning atmosphere and student participation level

(i) Teacher factors

Classroom atmosphere and students' participation level seem to be affected by:
• the personality and style of the NET,
• her/his ability to build rapport with students and,
• the interest level of activities and tasks.

Young, dynamic, humorous NETs (as opposed to NETs who are more formal and serious; NETs who scold students for speaking in L1) seem better able to get even low-ability students to participate in class activities and interactions (PA). In our case study data, we see that young, dynamic, humorous NETs also tend to use a greater variety of interesting activities and tasks while the more formal, serious and somewhat distant NETs (e.g. SC and SF) tend to cling to textbook worksheets and tasks. The latter also tend to have a poorer relationship with students because they conduct the lessons very much in the same way as many local teachers while
lacking the affective resources (e.g. sharing the same L1) to establish solidarity with the students.

(ii) Student factors

There is a clear distinction in responses to NET teaching between high English proficiency classes and low English proficiency classes.

High L2 proficiency classes in non-public exam classes across all sampled schools in general have positive attitudes towards NET teaching. They hold the NET’s English speech models and expertise in high regard and feel that they can learn better and acquire more standard English from the NET. Their positive self-image (though few would explicitly claim to have high proficiency in English), positive attitudes towards NET teaching, plus their own adequate L2 linguistic ability to interact with the NET (e.g. Students demonstrated and reported few communication problems in the NET’s classes) all seem to serve as a good foundation to enable them to participate in NET classes and benefit from NET teaching. In one student interview, a student with a higher L2 proficiency from SC was advising the others with lower L2 proficiency to be daring enough to speak up and ask questions because the NET was very willing to answer questions on a one-to-one basis when she walked near to the students.

In not-very-high L2 proficiency classes, preferred learning style and culture seem to be important factors affecting student participation and interest in NET lessons. Those students who are outspoken, outgoing, risk-taking, not afraid of making mistakes or being laughed-at, eager to make guesses and attempts to solve communication problems and tolerant of uncertainty, are found to be participating the most in interactions with the NET and in class activities. They also seem to enjoy NET lessons more. In contrast, those students who seem to be less adventurous, less outspoken and less tolerant of uncertainty, are found to be quiet or not engaged in lessons taught by the NET. Their facial expressions show that they seem to be at a loss (e.g., not knowing what’s happening, or what to do, or what the NET is talking about).

The student interview data confirms these observations. Some students say they prefer to be taught by a local teacher than a NET because “a local teacher can explain in Cantonese” and “they can ask questions in Cantonese” and understand better what is happening in the lesson. A local teacher will usually know what their problems are and can help them better. Some students (SC) even express highly negative feelings towards their NET, e.g., complaining that the NET doesn’t understand them, does not attempt to figure out what they want to say, and is not patient with them. Complete communication breakdown and total lack of rapport are found in the worst case: e.g., where the NET is reserved and serious (SF, SC), scolding students for speaking in L1 (SC), and where students’ L2 proficiency and motivation to learn English are low.

(B) Classroom instances of non-optimal use of NETs.

In this section, we shall describe how and why some NETs have not been able to play an optimal role. Two major types of situation in which the NET is not found to have a unique, optimal role to play are:

- with a local teacher doing consecutive translation for the NET in a low proficiency class;
- with the NET drilling students based on textbook exercises.
The local teacher does consecutive translation for the NET in a low proficiency class

Appendix V-a contains a transcript of part of a lesson conducted in a very low L2 proficiency Form 1 class, where the NET (R) is helped by a local teacher (P), who does consecutive translation for him.

In this lesson excerpt, the students need to pay attention only to the local teacher’s translations when listening to the instructions on how to play the game. The role of the NET seems to be limited to that of providing target pronunciation models for the words listed on the blackboard. The NET’s role can be easily replaced by a local teacher with target-like word pronunciations or an audio/videotape demonstrating the pronunciation for the students. The NET does not have a chance to directly interact with the students in L2, or to establish any real personal relationship with the students. The NET cannot understand the impish jokes of the students (e.g. a boy remarking that he needs to wear a suit to serve in the restaurant) and respond to them (the local teacher does that in L1 for the NET). Nor are the students motivated to speak directly to the NET in L2. In this kind of classroom scenario, the role of the NET is confined to that of a “human tape-recorder”.

In another lesson recorded with the same class in which the local teacher is teaching, it is evident that the local teacher plays the additional roles of counsellor, advisor, motivator, appealing to L1 cultural norms to urge the students to pay attention and do the work in class. The local teacher also plays the role of linguistic and cultural “broker”, acting as a middleman facilitating the communication between the NET and the students, presenting L2 material and explaining them in L1 for these limited-English speakers. Since the students in this school (a practical school) have serious motivation and learning attitude problems and their L2 proficiency is very low, the NET alone in the classroom cannot play the many non-pedagogical roles (e.g., counsellor, advisor) that local teachers can play. However, using a local teacher to do consecutive translations for the NET is clearly not an optimal use of resources.

One might be led to the conclusion that very low proficiency secondary school students might not be able to benefit from NET teaching in a regular classroom setting. However, low proficiency secondary students may be able to benefit from extra-curricular activities (e.g., drama, acting, role playing, poem speaking) led by a NET with the help of a local teacher. The NET can serve as a good model of L2 and as an actor in such activities engaging Ss in role-playing or acting out the social identities of L2 cultural members (see discussion in 7.3.2.5 below).

The NET does textbook-based language pattern drills

The unique qualities which distinguish NETs from local teachers are not employed to the full when the NET engages in teaching activities which a local teacher could do equally well. Examples of such activities include, for example, drilling students with textbook exercises and checking answers to tasks with the whole class.

Examples from the case study data taken from a secondary classroom (F.2, mid-ability level) illustrate NET engaging in classroom practices in which there is little evidence of the kind of authentic, spontaneous interaction between NET and students which would appear to represent a more effective use of resources.
The second classroom excerpt (Excerpt 2), which can be found in Appendix V-b, helps to illustrate the point.

In this F.2 lesson, almost half of the lesson time was spent on checking answers on some sentence transformation exercises with the students. The answer-checking activity is highly mechanical and non-communicative (as the whole class was looking at the same picture). The utterances coming from the students have no personal relevance to them. There is no doubt that the students were churning out the expressions listlessly (evident from the lengthened syllables of all words giving the impression of a lack of interest).

Excerpt 2 (Appendix V-b) can be compared with another lesson excerpt (Excerpt 3 in Appendix V-c) which shows a lesson taught by a local teacher. Here we can see that the local teacher can motivate students to use the target language meaningfully through an effective use of teaching methodology.

In this Excerpt, the group of F.1 students from the same school as those in Excerpt 2 were asked to use different adverbs of frequency to make personal sentences describing their everyday habits. It should be noted that both the classes in Excerpt 2 and 3 are the best in their respective year group in terms of overall academic performance.

Compared with the sentence pattern drills used by the NET in Excerpt 2, the task implemented by the local teacher in Excerpt 3 is more able to elicit meaningful and personal responses from the students. We can see that most students reported their sentences naturally. The teacher attempted to respond to the meaning, in addition to the form of the student’s utterance (see the example highlighted (marked with an arrow) in the excerpt). Of course, the local teacher in Excerpt 3 could have done more in this respect by attempting to extend the interaction sequences with each student.

(C) Classroom instances showing the unique impact of the NET

In the Hong Kong secondary school context, one aspect of the uniqueness of NETs is the fact that they are generally non-Cantonese speaking and never use Chinese in their teaching of English. Thus, any successful communication between the NETs and the students should in normal situations take place in English. Except in high proficiency schools or in classes where the local teachers are very strict about using only English in the English classroom, most students in our samples used Cantonese to ask and answer questions in classes taught by local teachers. The situations illustrated in Excerpts 4 and 5 below would seldom appear in a local teacher’s classroom.

The lesson recorded in Excerpt 4 (Appendix V-d) took place in the same class as that in Excerpt 3. Near the end of an answer-checking lesson, the NET talked about the holiday assignment. One student (B1) initiates a question in broken and quite unintelligible English about the project requirement. Assignments and assessments are always the major concerns of most Hong Kong students. If the teacher had been a local one, the student definitely would ask in Cantonese, and in most cases, for clarity purpose, the local teacher would answer in Cantonese too. The presence of the NET has forced the students to use English in some instances like this one. Interestingly, in this case where the discourse topic relates to an “administrative” matter, i.e. required length of the homework assignment, the communication is far from smooth and it is not at all clear that students would have understood what they were expected to do. On the other hand, they would not have had the environment to speak naturally in English if it had been a local teacher.
In Excerpt 5 (Appendix V-e), a girl initiates a question about a grammar exercise in English. Interactions like this are difficult to capture as the classes are large and the students and teachers usually talk softly. Nevertheless, from our observations, instances such as that in Excerpt 5 emerge quite frequently across cases during individual work time when the NET will walk around the class and monitor students' work. It is safe to assume that such interactions in a NET class would always take place in English. (This is of course, due not only to the general lack of Cantonese skills among the NETs, but reflects a teaching philosophy.) On the other hand, similar interactions in a local teacher's lessons would usually take place in Cantonese, or in mixed code with the teacher using English and the students Cantonese.

However, student initiation in English remains infrequent in Hong Kong classrooms. Usually, the teacher (both the NET and the local) will do most of the talking whereas the students will only nod their heads or repeat one or two words. In our data, there are many occasions in which the students use more Cantonese than English even in NET classes. The Cantonese was mainly used by students in talking among themselves, or in helping themselves make sense of what the teachers had said.

The NET also seems to have a unique role to play in apprenticing pupils into the culture of L2 speaking and "acting" by modelling naturally how target L2 speakers speak and act, with appropriate paralinguistic features - the verbal and non-verbal expressions that go with the speaking.

An example can be found in Lesson Excerpt 6 (Appendix V-f). The lesson excerpt is taken from a lesson in which a NET is engaging a primary 3 class in a dramatic act to get them to both verbally express and act out a particular identity for other students to guess (e.g., an old person who is sad). The extract shows a pair of pupils acting out a dialogue with appropriate facial, body and verbal expressions to project a certain identity for their classmates to guess. The NET's own dramatic facial and body expressions, coupled with the use of appropriate voice and stress patterns, serve as a good model for the pupils' acting and speaking in L2. The activity is greatly enjoyed by the pupils, with the pupil actors attracting hilarious laughter from the class.

While a local teacher well-versed in communicative L2 development strategies can also possibly create a similar L2 speaking environment, it will perhaps take someone who has interacted in an L2 culture for some time to be able to naturally model both L2 social ways of speaking and the corresponding social ways of acting.

In our data, evidence of the unique impact of the NETs in terms of interaction with students is not substantial. Very often, students kept silent in the NET classes, or only responded with 'yes' or 'no'. In some local teachers' lessons in our samples, the interactions between the teachers and the students were more lively and the language use more creative. The major reason for this can be traced to the use of some Cantonese in explaining vocabulary, joking and socialising with the students.

7.3.2.5 NET Effects through Extra-curricular Activities

The unique role of the NET is well illustrated in drama or acting activities with students, both inside and outside the classroom. In such activities the NET can model appropriate language
and coach students in culturally appropriate ways of acting, gesturing and moving that accompany L2 ways of speaking. It seemed that extra-curricular activities (ECA) might have provided a better means through which a positive relationship between the students and the NET could be developed. The same could, of course, be said of local teachers, since ECA provide a less stress-laden learning environment generally. Although it was difficult to record unplanned interactions taking place outside the classrooms, evidence can be found in the field observations of our researchers to show that the presence of the NETs has increased staff and student opportunities to use English for socialisation purposes. For example, some students in SG recounted joyfully their experience of having a drink and a nice chat with the NET after playing volleyball together. The NET in SF also reported an interesting activity she had had with a group of boys (all voluntary participants) during which she taught them how to make pancakes and explained the story behind this Shrove Tuesday custom. The NETs in SC and PB also expressed a stronger sense of achievement in organising extra-curricular activities (e.g. drama, role-play, creative writing workshop, etc.) for the students and having other sorts of social gathering (e.g. lunching together, picnicking together, etc.). To the NETs, these experiences were more memorable than those in the classroom. It is also through these non-institutional social interactions that students experience a meaningful and authentic use of language.

The table in Appendix VI summarises a drama activity that a NET carried out with a primary 4 class. The students seem to have enjoyed this activity immensely and the NET provided appropriate cultural modelling and coaching to help the students to enact the different L2 social roles. In another drama session with the students after school (as an extra-curricular activity), the NET modelled and coached the students in acting out different kinds of emotions that go with different L2 utterances. For instance, the NET demonstrated what to say (and what facial expressions to use) when you greet someone whom you have not seen for a long time. The students seemed to greatly enjoy the activity and took up different personas as they produced the L2 utterances with the appropriate accompanying facial expressions, intonations and gestures modelled by the NET. While a local teacher can also possibly lead such drama activities, it would take someone who has been immersed in the L2 culture for some time to successfully play role played by the NET.

### 7.3.2.6 Unique Role and Positive Impact of NETs on the Teaching and Learning of English

The following table summarises the important attributes of an effective English language teacher based on the opinions of the school personnel and students who took part in the case study. Similar attributes have been identified in the literature on attributes of good English language teachers (Hong Kong Institute of Education, 2000). Attempt is made below to compare the potentiality of NETs and subject and professionally well-trained local English teachers in performing these roles.
### Comparing the Role of NETs and Local Teachers

<table>
<thead>
<tr>
<th>Roles</th>
<th>Monolingual NETs</th>
<th>Bilingual Local Teachers</th>
</tr>
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<tbody>
<tr>
<td><strong>Motivating students to use English inside the classrooms.</strong></td>
<td>(√) Since the NETs did not know Cantonese, students were forced to speak in English, no matter how broken it was. Some really weak students have of course adopted an avoidance strategy but the situation would be the same in local teachers' lessons.</td>
<td>(√) Even though some weak students took advantage of local teachers' Cantonese knowledge and spoke in Cantonese, upon insistence by the teacher, most of them would try to use English.</td>
</tr>
<tr>
<td><strong>Motivating students to English outside the classrooms.</strong></td>
<td>(√) Clear evidence was obtained during our visits that students spoke (mainly greetings though) to the NETs in English. Some higher ability students (mainly girls) would take initiative to talk to the NETs during recess and after school.</td>
<td>(?) Except for the EMI school (SE), most students we have observed during our visits spoke to local English teachers in Cantonese. A few occasions did happen when the local teachers answered senior form (P.6-7) students' questions in English (SF).</td>
</tr>
<tr>
<td><strong>Improving students' oral and listening abilities and increasing students' confidence in speaking English.</strong></td>
<td>(√) Almost all students we have interviewed agreed that their listening and speaking abilities will be improved after being taught by the NET. Some students from SE, however, were not confident in achieving good results in public exams because the NET was not familiar with the public exam syllabus. All students thought that they were learning 'more standard' English from the NET even only the high ability students think that they have increased confidence in speaking English.</td>
<td>(√) Most non-NET students we have interviewed were satisfied with their local teachers in improving their English, particularly in public exams because local teachers were more familiar with the exam syllabus and understood their difficulties better. At least half, however, would welcome having one or two lessons a week with the NET so that they could hear more 'standard' English and would be 'forced' to speak English.</td>
</tr>
<tr>
<td><strong>Acting as cultural model of the target language.</strong></td>
<td>(√√) Nobody could deny that the NETs can role-model the everyday and social use of English for expressing feelings, emotions, desires, etc. through their natural ways of acting, speaking and behaving.</td>
<td>(?) Most local teachers (including those who had received overseas education) admitted that they were not as confident as the NETs in talking about cultural issues. This is particularly felt to be the case by the non-English teachers and principals.</td>
</tr>
<tr>
<td><strong>Providing cultural knowledge of the target language.</strong></td>
<td>(√√) Due to the reason presented in the previous cell, it is felt by most principals, local non-English and English teachers that NETs should be better able to do this.</td>
<td>(√) While most local English teachers felt that they might be less able to role-model the cultural nuances of the target language, they would still be able to present such knowledge through reading books.</td>
</tr>
<tr>
<td><strong>Introducing innovative and creative ELT methodology.</strong></td>
<td>(√) By coming from the British-Australia-North-American circle of countries where most current ELT methodologies were developed, it is believed that NETs would have a better knowledge of the latest development of ELT methodology. However, in our sample, not every NET displayed that difference in any remarkable way. For example, the NET in SC was observed to have conducted classroom activities which are more or less as teacher-centred and textbook-based as many local teachers. Except the one in PA, most NETs in our cases did not consistently demonstrate a higher ability to use innovative and creative methodology in class. They tended to, however, show more such qualities during extra-curricular activities.</td>
<td>(√) Some local teachers (PA, SD, SF in particular) we have observed had at times demonstrated teaching activities which were interesting and communicative. Of course, teacher-centred and textbook-based teaching still dominated the English curriculum.</td>
</tr>
</tbody>
</table>
Displaying a high competency in using the target language.  

| Displaying a high competency in using the target language. | (✔✔) All NETs in our cases were born and raised in an English-speaking country and are qualified teachers of English as a second and foreign language. Their English competence should be beyond doubt. Students and principals all believed that the NETs speak and write ‘more standard’ English. | (✔) Even though grammar and pronunciation models of the NETs are more highly regarded by the students, principals, and even some of the local English teachers, most of the non-NETs in our case study schools demonstrated a high level of English proficiency as a classroom language. However, it cannot be denied that some of the non-NETs (except those in SE) used Cantonese in their teaching, ranging from 20% to 80%. |
| Promoting target-language-related extra-curricular activities. | (✔✔) As discussed in Section 7.1.2.5, NETs played an important role in organizing extra-curricular activities including English Corner, English Verse Speaking, English Debate, Drama, etc. | (✔) It is undeniable that with the availability of the NETs, non-NETs were taking a less leading, but more assisting role in organizing English extra-curricular activities. |
| Providing counsel and advice to students with low proficiency and motivation. | (✘) Because almost all of the NETs did not know Cantonese, they simply could not communicate well with such students. From our visits, there were occasions on which the NET could not understand the problems of some misbehaving students. On a few occasions, our fieldworkers had to offer help by translating the students’ explanations to the NETs. Some of the NETs teaching in low banding schools told us that they usually relied on other students for help. | (✔✔) By sharing the same first language with the students, local teachers of course are in a much better position to take this role. Clear evidence was found in classes with low motivation and weak English. There were occasions during which the lessons just could not go on without some Cantonese counselling and negotiation with the students (e.g. SF, SG). |

**KEY:** ✔✔ considered very able to ✔ able to ❓ not sure X unable to

The table is intended to illustrate that given proper professional development and subject training, some local teachers are fully competent in fulfilling most of the roles currently perceived to be unique to the NETs. However, under most circumstances in our case study schools, neither the NETs nor the local teachers could function effectively as second language teachers. Due to the cost of the Scheme, much higher community expectations have been placed on the NETs to create ‘immediate effects’ (Chief Executive, 1997) on improving students’ English standard. There are many counteracting forces militating against an effective implementation of TESOL methodologies. These include:

- **Large class size.** This has made a communicative approach for genuine interaction in classes where students have low motivation almost impossible to implement. Students will revert to the use of Cantonese among peers when there is insufficient monitoring from the teacher. Serious discipline problems will occur more easily in large class when most students do not get sufficient individual help from the teacher. A lack of Cantonese knowledge on the part of the NETs also makes it more difficult for them to keep students in order.

- **A long-standing teaching and learning culture that is textbook-based and exam-oriented in most of the secondary level case study schools, except perhaps the practical school (SG) which might have less pressure in this aspect.** It seems that the more prestigious the school is (e.g. SE), the more anxious students and teachers are in studying for exams. In many schools in Hong Kong creativity and experimenting with innovative ideas in class are
often sacrificed for covering textbook materials and meeting exam requirements (Evans, 1997; Morris, 1985, 1986, 1996). When the NET has been immersed in this culture, they will be under pressure to act in the same way as other local teachers, striving hard every day to cover the textbook exercises and drill students for a better result in the pencil and paper exam which involves little need to interact.

- A heavy teaching and marking load has eaten up all the time and energy of the teachers. There is virtually nothing left for any endeavour for professional development such as attending conferences and seminar, sharing ideas and collaborating in curriculum and instructional planning.

7.3.2.7 Optimal Conditions for a Successful Implementation of the NET Scheme

The most successful case in our samples happens to be a primary school. The following factors have contributed to its success:

- The NET is young, energetic and pleasant. She has worked in the school before and therefore knows the level and nature of the students well. Most students we have interviewed like her so much because her lessons are always great fun. She has ample experiences in teaching English for creative purposes.

- The students all come from well-off families with well-educated parents. An English-speaking culture is not strange to them. Most of them are highly motivated to learn English because English is part of their sociocultural world. Many of them were having private native English tutors and thus were already very used to speaking in English. English is also often the home language, either due to the presence of English-speaking maids or because their parents require an English-only communication.

- The principal has a strong background in English teaching in Hong Kong. She knows well what constitutes effective TESL methodology and never hesitates to implement it through curriculum adjustment.

- Under the leadership of the principal, the whole school has established a culture of open sharing through staff development seminars, peer teaching observations and team work in materials design and preparation. With strong support from the principal, all other local teachers have been highly cooperative and supportive in facilitating the innovative ideas put forward by the NET.

- The school, being a primary school, is not under too much public exam pressure. The major focus of the primary English curriculum on oral literacy also provides a good context for the NET to fully utilise her expertise.

The NET was able to achieve a lot in this school not just because she was a NET, but because she possessed the type of personality that is well-liked by students. She worked in a school context that was unusually favourable to English language learning. However, most of these optimal conditions, particularly the ones related to the school culture and principal's leadership, were lacking in the other six case study schools. In these schools the NETs have not been
encouraged or felt as supported to make the same level of impact on the school, as the optimal conditions would allow.

**Curriculum and school support**

Curriculum support is another factor postulated to create optimal conditions for NETs. This is based on concerns expressed by some NETs, particularly those who do not want to depend on prescribed textbooks and worksheets for planning their lessons. These teachers generally experience a lack of curriculum support from the school or from the Education Department. NET interview data shows a general complaint about the lack of available teaching materials and they feel that they are left on their own to find/design suitable materials, tasks and activities for their classes. The lack of provision of long-term curriculum resources and planning shows in the piecemeal nature of the lesson planning of some of the case study NETs; e.g., an apparent lack of recycling and building up of lesson content reflecting longer term objectives; an apparent lack of continuity between topics in different lessons; a lack of variety of tasks/activities (some students remarked that they soon get tired of their NET's activities as "they are always the same"). Some NETs also complain about the lack of professional sharing and support among colleagues in the school; e.g., local colleagues only focus on doing their own work and there is no exchange of ideas or teaching materials. Some NETs feel that the exam-oriented school curriculum is too constraining.

**Low-exam-pressure, context-embedded, social language use**

Pupils in a primary class with average to low L2 proficiency in the case study data did not experience serious communication problems with the NET when the NET used a lot of contextual aids (e.g., dramatic facial expressions, gestures, body movements, actions, and drawings/pictures) to embed L2 language use in the classroom, and when the lesson content was not subject to exam pressure and was conceptually undemanding (e.g., learning to describe concrete here-and-now subjects, to perform simple greetings, or to express simple emotions in L2 vs. a packed, conceptually demanding secondary school curriculum — e.g. learning to write a letter of complaint). Since the primary English curriculum content is more concrete, about the here-and-now and oriented towards social English (rather than academic English), the NET (albeit in a school that does not have a high academic standard) seemed to experience more success in communicating with students and arousing their interest in using English by creating interesting communicative contexts in the classroom.
8 Student Questionnaires

8.1 Instrument Design

Questionnaires were administered to primary pupils and secondary students in control (NNET) and experimental (NET) groups. The questionnaires were designed to solicit information pertaining to student attitudes towards English in order to address research question number three:

What is the effect of the NET Scheme on student language learning in terms of the English language proficiency and attitudes towards English among pupils in the schools involved?

Certain items in the questionnaires designed for students taught by NETs would also provide information pertinent to research question number one:

What is the nature of the teaching and learning approach adopted by NETs and how does it differ from that of local teachers in terms of:

a. approach to and influence on the school syllabus?

b. teaching, learning and assessment materials, methods and approaches adopted?

It is hypothesised (see section 5.2.1. above) that one of the assumptions underlying the NET scheme is that the introduction of greater numbers of native speakers of English into the schools would enhance student attitudes towards the language. Low motivation to learn English associated with the fact that English is just another examination subject is seen as a possible cause of declining standards of English in Hong Kong. One of the educational benefits of the introduction of NETs into the schools might be a realisation among students that English is a means of communication and not simply an examination subject.

In order to trace a NET effect in terms of changing attitudes over time, the questionnaire was designed to be administered at two points, early and late, in students' experience of being taught by, or exposed to, a native English-speaking teacher

Two forms of the student questionnaire were produced for each level of schooling—secondary and primary. One form was designed for the control groups of students who had not been taught by a native English speaker—the NNET student questionnaire, the other for students who had been taught by a NET in the evaluation period. The periods of exposure being investigated coincided with those for the student assessment instruments:

Second Cohort: September 1999 – June 2000

Except for those items requiring students to quantify amount of reading, listening or viewing, all of the items employ a five-point Likert scale.

Questionnaires were initially designed in English and translated into Chinese for administration to students. Copies of the questionnaires can be obtained upon request from the research team (see footnote on page 5 above).
The content of the primary and secondary student questionnaires is shown in the table below followed by the rationale for the inclusion of the various elements. The questionnaire for students by a NET included additional items eliciting perceptions related to the experience of being taught by a NET. This accounts for the larger number of items in the NET questionnaires.

**Structure and content of questionnaire for secondary students**

<table>
<thead>
<tr>
<th>Questionnaire: Secondary</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section</td>
<td>(NNET)</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
</tr>
</tbody>
</table>

**Structure and content of questionnaire for primary students**

<table>
<thead>
<tr>
<th>Questionnaire: Primary</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section</td>
<td>(NNET)</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

Detailed explanations for each section are given below:

**Section 1-2: English Reading, Viewing and Listening Habits**

It is hypothesised that if student attitudes towards English are enhanced by the scheme there will be an increase in their willingness to expose themselves to more English in the form of reading, watching and listening to more English. In addition, if the scheme has an effect on enhancing proficiency in English, these forms of the language would be made more accessible to students.

**Section 3: English Speaking Habits**

Being exposed to a NET is hypothesised to bring the important realisation to students that English is a medium of communication. This may result in greater willingness to use English in communicating with friends and greater confidence in communicating with native speakers of English generally. This section also elicits information about the language of the home.
Section 4: Study Habits

This section elicits information about student attitudes to the English subject in school, their level of interest, degree of engagement, their learning strategies and their intrinsic or extrinsic motivation to study English. It employs items from a validated questionnaire survey on language learning strategies (Hepburn, 1991).

Section 5: Self-Assessment

This section attempts to trace any difference in students’ perceptions of their strengths and weaknesses in the four language skills.

Section 6: Attitudes towards English Language Teachers

This section elicits student views towards a series of posited NET effects and the distinguishing characteristics of NET teaching when compared to the methods and approaches employed by local teachers of English.

Section 7: Attitudes towards English Speakers

This section contains semantic differential items from the attitudinal survey employed in the evaluation of the Expatriate English Language Teacher Pilot Scheme (British Council, 1989) eliciting student attitudes towards speakers of English in terms of their perceptions of a range of personality traits and attributes.

Underlying Traits of the Seven Categories

For the convenience of respondents and to maximise the clarity of items, student questionnaire items were grouped under seven categories listed above. However, items in the questionnaires were postulated to address five underlying traits related to the research investigation. These traits were hypothesised to be the loci of change over time resulting from exposure to the NETs. As such they are intuitively based theoretical constructs.

The five traits are as follows:

<table>
<thead>
<tr>
<th>Traits</th>
<th>Variable Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude to English as a school subject</td>
<td>Attitude_sub</td>
</tr>
<tr>
<td>Belief that the NET could effect improvement in their language ability</td>
<td>NET can help</td>
</tr>
<tr>
<td>Conceptualisations regarding the personality of speakers of English</td>
<td>NET personality</td>
</tr>
<tr>
<td>Study habits related to effective language learning/enhancement</td>
<td>Study habit</td>
</tr>
<tr>
<td>Motivation to learn/develop competence in English</td>
<td>Motivate</td>
</tr>
</tbody>
</table>
These five traits map onto the seven categories of questionnaire items roughly as follows:

<table>
<thead>
<tr>
<th>English Reading Habits</th>
<th>Attitude to English as a school subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Viewing and Listening Habits</td>
<td>Study habits related to effective language learning/enhancement</td>
</tr>
<tr>
<td>English Speaking Habits</td>
<td>Motivation to learn/develop competence in English</td>
</tr>
<tr>
<td>Study Habits</td>
<td></td>
</tr>
<tr>
<td>Self-Assessment</td>
<td></td>
</tr>
<tr>
<td>Attitudes towards the NETs</td>
<td>Belief that the NET could effect improvement in their language ability</td>
</tr>
<tr>
<td>Attitudes towards English Speakers</td>
<td>Conceptualisations regarding the personality of speakers of English</td>
</tr>
</tbody>
</table>

The self-assessment items were not directly related to the five traits, but included as an experimental investigation into the relationship between perceived and actual language gain arising from exposure to NET teaching.

8.2 Reliability

Internal consistency reliability of the clusters of items comprising the traits were estimated in the secondary and primary school questionnaire data, respectively, using a covariance method, for each of the four administrations of the questionnaire.

The results confirm the validity of the traits insofar as the patterns of student responses to items in each cluster exhibited consistency. The detailed results of these analyses can be obtained upon request from the research team (see footnote on page 5 above).

8.3 Analysis of Student Questionnaire

8.3.1 Methodology

The analysis of the student questionnaires was aimed firstly at establishing if there were any changes in time in specific students' attitudes towards the teaching and learning of English. Where such changes were observed, the analysis then went on to investigate whether they could be attributable to the students' exposure to the NET teacher i.e. a NET effect.

(A) Components

Individual Likert scale scores of the students' questionnaires were firstly analysed and a number of traits were computed from selected items within the questionnaires using SPSS. Five traits were thus established and these were the dependent variables used in the analysis. They are listed below.

**Dependent variables**
- Attitude towards learning English;
- Students' perception of how NETs could help them learn English;
- The personality of the NET;
- Students' individual study habits;
- Motivation to learn English.
The three independent variables used in this analysis were: levels of teaching mode, school level and form level. Since there were two cohorts of students under investigation, these independent variables are different for each cohort, as follows:

**Levels of teaching mode**
1\(^{st}\) cohort 1\(^{st}\) administration and 2\(^{nd}\) cohort administrations: NET, Local, Both.

1\(^{st}\) cohort, 2\(^{nd}\) administration (long-term NET effect): teacher in year 1 and teacher in year 2, thus producing four groups NET to NET; NET to Local; Local to NET; Local to Local.

**School level**
High, medium and low.

**Form level**
1\(^{st}\) cohort 1\(^{st}\) administration: Secondary: Form 1, 3 & 4. Primary: 3 & 5.
1\(^{st}\) cohort 2\(^{nd}\) administration: Secondary: Form 2, 4 & 5. Primary: 4 & 6.
1\(^{st}\) and 2\(^{nd}\) cohorts administrations: Secondary: Form 1 & 3. Primary: 3 & 5.

(Note: In the results below, the combinations of independent variables are described as group combinations.)

(B) **Statistical Methods**

Firstly, a 3-way ANOVA was conducted to identify significant main or interaction effects of the teaching modes, school levels and form levels on each questionnaire trait. Secondly, a follow-up ANOVA was conducted where significant interaction effects were revealed, and on significant main effects when the interaction effect was not found to be significant. Finally, multiple comparisons were conducted on the effects that were found to be significant.

(C) **Assumption test statistics**

The Spread versus level plots evaluate whether there is a relationship between the mean and the variance values. If the plot shows a pattern this indicates that the analysis is unreliable, then the results are not reported.

Levene's test of equality of variance was used to evaluate whether the population variances of the dependent variable were the same for each of the combinations of independent variables. A value of less than 0.05 indicates a violation of this assumption. The sample size for each combination of independent variables should be larger than fifteen.
8.3.2 Findings

8.3.2.1 Cross-sectional Analysis of Student Questionnaire

(A) Secondary schools

(i) First cohort first administration

**Assumptions of 3-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variables (Traits)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>Weak and negative relationship</td>
<td>0.038</td>
<td>One out of 26</td>
</tr>
<tr>
<td>Help from NET</td>
<td>No pattern</td>
<td>0.055</td>
<td>One out of 26</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>No pattern</td>
<td>0.188</td>
<td>Four out of 26</td>
</tr>
<tr>
<td>Study habit</td>
<td>No pattern</td>
<td>0.025</td>
<td>Four out of 26</td>
</tr>
<tr>
<td>Motivation</td>
<td>One outlier and no pattern</td>
<td>0.02</td>
<td>Two out of 26</td>
</tr>
</tbody>
</table>

The results shown in the above table suggest that the reliability of the analysis of all the dependent variables was generally satisfactory, except for Attitude towards English. For each of the other traits a significant effect was found in the form of an interaction between school level and teaching mode. The results suggest that a follow-up 2-way ANOVA should be conducted on all four dependent variables. The assumptions of this analysis were checked with the following results.

**Assumptions of the follow-up 2-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variables (Traits)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help from NET</td>
<td>No pattern</td>
<td>0.092</td>
<td>None</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>No pattern</td>
<td>0.178</td>
<td>None</td>
</tr>
<tr>
<td>Study habit</td>
<td>No pattern</td>
<td>0.326</td>
<td>None</td>
</tr>
<tr>
<td>Motivation</td>
<td>No pattern</td>
<td>0.001</td>
<td>None</td>
</tr>
</tbody>
</table>

The results shown in the above table suggest that the reliability of the analysis of the four dependent variables is good. The significant multiple comparisons are shown in the table below.

**Multiple comparisons results**

<table>
<thead>
<tr>
<th>School Level</th>
<th>ANOVA p-value</th>
<th>Levene's test p-value</th>
<th>Significant comparisons</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help from NET</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>&lt; 0.001</td>
<td>0.275</td>
<td>Both &gt; NET</td>
<td>0.002</td>
</tr>
<tr>
<td>Medium</td>
<td>0.005</td>
<td>0.73</td>
<td>Both &gt; Local</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>High</td>
<td>0.101</td>
<td>0.008</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Personality of NET</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>0.002</td>
<td>0.241</td>
<td>NET &gt; Local</td>
<td>0.005</td>
</tr>
<tr>
<td>Medium</td>
<td>&lt; 0.001</td>
<td>0.099</td>
<td>Both &gt; Local</td>
<td>0.006</td>
</tr>
<tr>
<td>High</td>
<td>0.208</td>
<td>0.567</td>
<td>None</td>
<td>0.019</td>
</tr>
</tbody>
</table>
In the above table, for the trait 'Help from NET', on average, students taught by a combination of local teachers and NETs have a more positive attitude than those taught by either local teachers or NETs in low-level schools. Students taught only by NETs have a more positive attitude than those taught only by local teachers in medium-level schools.

For the trait 'Personality of the NET', on average students taught only by NETs or a combination of local teachers and NETs have a more positive attitude than those taught only by local teachers in low and medium-level schools.

For the trait 'Study Habits', on average students taught by a combination of local teachers and NETs have a more positive attitude than those taught only by local teachers or NETs in low-level schools. Students taught by only NETs have a more positive attitude than those taught by local teachers in medium level schools. Students taught by either NETs or Local teachers have a more positive attitude than those taught by a combination of both local teachers and NETs in high-level schools.

For the trait 'Motivation', on average students taught only by NETs or a combination of both local teachers and NETs have a more positive attitude than those taught only by local teachers in low-level schools. On average students taught only by local teachers or NETs have a more positive attitude than those taught by a combination of NETs and local teachers in medium-level schools.

To conclude, 7 out of the 16 significant comparisons indicate a more positive attitude on the part of students taught only by NETs. Only 2 of the 16 significant comparisons show a more positive attitude on the part of students taught only by local teachers.

**Discussion**

The first administration of the student questionnaire was conducted with the language assessments in March 1999. The first cohort NETs had been in place since the previous September. In this period of six months, the sampled groups would have been influenced by their English teacher, whether he or she was a NET or a local teacher, or whether that class had been taught by both NETs and local teachers, perhaps in some form of team teaching or split class teaching. This influence may be very small, but it is likely to be represented in the data gathered in the first administration of the questionnaires to the first cohort groups.
While the influence of the students' English teacher (whether a NET, a local or Both) is likely to account for a certain proportion of the findings, they will have been influenced by a host of other factors and it is not possible to identify any causal factors for the differences found. These is baseline information, gathered in order to identify and understand the pre-existing patterns or tendencies in the data and provide a basis for making longitudinal comparisons based on the second administration findings obtained from the same students.

(ii) First cohort second administration

**Assumptions of 3-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variables (Traits)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>No pattern</td>
<td>0.004</td>
<td>14 out of 27</td>
</tr>
<tr>
<td>Help from NET</td>
<td>Weak and positive pattern</td>
<td>0.046</td>
<td>15 out of 27</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>No pattern</td>
<td>0.078</td>
<td>13 out of 27</td>
</tr>
<tr>
<td>Study habit</td>
<td>No pattern</td>
<td>0.002</td>
<td>15 out of 27</td>
</tr>
<tr>
<td>Motivation</td>
<td>Three outliers</td>
<td>0.007</td>
<td>16 out of 27</td>
</tr>
</tbody>
</table>

The results shown in the above table suggest that the reliability of the analysis of all dependent variables was moderate. The significant effect of each analysis is indicated in the table below.

<table>
<thead>
<tr>
<th>Significant effect</th>
<th>Attitude toward English</th>
<th>Help from NET</th>
<th>Personality of NET</th>
<th>Study Habit</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction of form level and teaching mode</td>
<td>Teaching mode</td>
<td>Teaching mode</td>
<td>None</td>
<td>Form level</td>
<td></td>
</tr>
</tbody>
</table>

The results of the above table suggest that a follow-up 2-way ANOVA should be conducted on 'Attitude towards English', and multiple comparisons should be conducted on 'Help from the NET' and 'Personality of the NET'.

**Checking the Assumptions of a follow-up two-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>No pattern</td>
<td>0.009</td>
<td>1 out of 11</td>
</tr>
</tbody>
</table>

The assumptions of this analysis were checked and the results are shown above. They suggest that the analysis of the trait 'Attitude towards English' was reliable.
The multiple comparison analysis results are presented below.

### Multiple comparisons results

<table>
<thead>
<tr>
<th>Attitude toward English</th>
<th>School level</th>
<th>ANOVA p-value</th>
<th>Levene's test p-value</th>
<th>Significant comparisons</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>0.074</td>
<td>0.448</td>
<td>N→N &gt; L→L</td>
<td>0.036</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>0.039</td>
<td>0.258</td>
<td>None</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>0.1</td>
<td>0.456</td>
<td>N→N &gt; N→L, L→N &gt; N→L</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>L→L &gt; N→L</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>L→L &gt; N→L</td>
<td>0.005</td>
</tr>
</tbody>
</table>

For the trait ‘Attitude towards English’, on average students in Low ability schools taught by a NET for two consecutive school years (N to N) have a more positive attitude than those taught by a Local teachers for the same two-year period (L to L). The same holds for students in High ability schools: those who were taught by a NET for two consecutive school years (N to N), tended to show more positive attitudes to English. However, those students in High ability schools who were taught by a Local teacher in the first of the two years and by a NET in the second year (L to N) as well as those taught by a Local teacher for two years (L to L), have a more positive attitude than those taught NET in the first year and a Local in the second (N to L).

### Multiple comparisons results

<table>
<thead>
<tr>
<th></th>
<th>ANOVA p-value</th>
<th>Levene's test p-value</th>
<th>Significant comparison</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help from NET</td>
<td>0.005</td>
<td>0.046</td>
<td>N→N &gt; L→L, N→L &gt; L→L</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>0.011</td>
<td>0.073</td>
<td>N→L &gt; L→N, N→L &gt; L→L</td>
<td>0.016</td>
</tr>
</tbody>
</table>

The results in the above table suggest that, in the trait ‘Help from NET’, on average students taught by a teaching transition of NET for two consecutive years (N to N) or a NET in the first year and a Local teacher in the second (N to L) have a more positive attitude than those taught by Local teachers for two years (L to L).

For the trait ‘Personality’, on average students taught by a NET in the first year and a Local teacher in the second (N to L) have a more positive attitude than those taught by Local teachers for two years (L to L) or by a Local teacher in the first year and a NET in the second (L to N).

To conclude, 3 out of the 8 significant comparisons consist of a more positive attitude demonstrated by students taught only by a NET (N to N). Only one of the eight consists of a more positive attitude demonstrated by students taught by Local teachers for the same period (L to L).
(iii) Second cohort first administration

**Assumptions of 3-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene’s test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>No pattern</td>
<td>0.195</td>
<td>None</td>
</tr>
<tr>
<td>Help from NET</td>
<td>No pattern</td>
<td>0.371</td>
<td>None</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>One outlier, weak pattern</td>
<td>0.315</td>
<td>None</td>
</tr>
<tr>
<td>Study habit</td>
<td>No pattern</td>
<td>0.284</td>
<td>One</td>
</tr>
<tr>
<td>Motivation</td>
<td>Negative relationship</td>
<td>0.012</td>
<td>None</td>
</tr>
</tbody>
</table>

The checking of assumptions gave a negative result. As shown in the above table, the findings suggest that the analysis for the trait 'Motivation' was unreliable. The reliability of other analyses was good and the corresponding significant effect is indicated in the table below.

The results of the above table suggest that a follow-up 2-way ANOVA should be conducted on the three traits, ‘Attitude towards English’, ‘Help from the NET’ and ‘Personality of the NET’.

**Assumptions of follow-up two-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene’s test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>No pattern</td>
<td>0.11</td>
<td>None</td>
</tr>
<tr>
<td>Help from NET</td>
<td>No pattern</td>
<td>0.581</td>
<td>None</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>Negative pattern</td>
<td>0.185</td>
<td>None</td>
</tr>
</tbody>
</table>

After checking the assumptions of the follow-up 2-way ANOVA it was clear from the results, as shown in the table above, that the further analysis of the trait ‘Personality of the NET’ was likely to be unreliable.

The significant follow-up multiple comparisons of the other reliable analyses are shown in the table below.

**Multiple comparisons results**

<table>
<thead>
<tr>
<th>Attitude towards English</th>
<th>ANOVA p-value</th>
<th>Levene’s test p-value</th>
<th>Significant comparisons</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>0.044</td>
<td>0.684</td>
<td>Local &gt; NET</td>
<td>0.027</td>
</tr>
<tr>
<td>Medium</td>
<td>0.112</td>
<td>0.135</td>
<td>Both &gt; NET</td>
<td>0.02</td>
</tr>
<tr>
<td>High</td>
<td>0.011</td>
<td>0.038</td>
<td>NET &gt; both</td>
<td>0.05</td>
</tr>
<tr>
<td>Low</td>
<td>0.025</td>
<td>0.616</td>
<td>Both &gt; NET</td>
<td>0.009</td>
</tr>
<tr>
<td>Medium</td>
<td>0.002</td>
<td>0.132</td>
<td>NET &gt; Local</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>High</td>
<td>&lt;0.001</td>
<td>0.854</td>
<td>NET &gt; Local</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Help given from NET</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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The results in the above table suggest that, for the trait 'Attitude towards English', on average students taught by a local teacher or a combination of local teacher and NET have a more positive attitude than those taught only by a NET in low ability school.

In Medium and High ability schools, however, students taught by a NET have a more positive attitude than those taught by a combination of local teacher and NETs.

For the trait 'Help from the NET', on average students taught by a combination of local and NET have a more positive attitude than those taught only by a NET in low ability schools.

On the other hand, in Medium and High ability schools, students taught only by a NET have a more positive attitude than those taught by either local teachers or by a combination of local teachers and NETs.

To conclude, 6 out of the 9 significant comparisons involve a more positive attitude shown by students taught only by a NET. Only one of these 9 findings consists of a more positive attitude demonstrated by students taught only by local teachers.

(iv) Second cohort second administration

Assumptions of 3-way ANOVA

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>No pattern</td>
<td>0.625</td>
<td>4 out of 17</td>
</tr>
<tr>
<td>Help from NET</td>
<td>No pattern</td>
<td>0.122</td>
<td>3 out of 13</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>Negative relationship</td>
<td>&lt; 0.001</td>
<td>4 out of 17</td>
</tr>
<tr>
<td>Study habit</td>
<td>Positive relationship</td>
<td>0.366</td>
<td>7 out of 24</td>
</tr>
<tr>
<td>Motivation</td>
<td>Negative relationship</td>
<td>0.001</td>
<td>4 out of 24</td>
</tr>
</tbody>
</table>

The results of the checking of assumptions shown in the above table suggest that the analysis of personality, study habit and motivation was unreliable.

The only significant effect of the reliability analysis related to 'Attitude towards English' as shown in the table below.

<table>
<thead>
<tr>
<th>Significant effect</th>
<th>Attitude toward English</th>
<th>Help from NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction of school level and teaching mode</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

The results suggest that a follow-up 2-way ANOVA should be conducted on 'Attitude towards English'.

Assumptions of follow-up ANOVA

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>Weak and negative pattern</td>
<td>0.127</td>
<td>None</td>
</tr>
</tbody>
</table>

The checking of assumptions for the follow-up ANOVA shown in the above table suggests that the reliability of the analysis was moderate. The significant multiple comparisons are shown in the table below.
For the trait 'Attitude towards English', on average, students in low ability schools taught only by local teachers have a more positive attitude than those taught only by a NET.

(B) Primary

The primary school pupils' questionnaire contains only three traits for analysis: 'Attitude towards English', 'Personality of the NET', and 'Motivation'. The analysis of these three traits is described below.

(i) First cohort first administration

**Assumptions of 3-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>No pattern</td>
<td>0.022</td>
<td>2 out of 8</td>
</tr>
<tr>
<td>Help from NET</td>
<td>One outlier, no pattern</td>
<td>0.013</td>
<td>2 out of 5</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>No pattern</td>
<td>0.02</td>
<td>2 out of 8</td>
</tr>
</tbody>
</table>

The results of the checking of assumptions shown in the table above suggest that the reliability of the analysis of all dependent variables is moderate. The significant effect of each analysis is indicated in the table below.

<table>
<thead>
<tr>
<th>Significant effect</th>
<th>Attitude towards English</th>
<th>Help from NET</th>
<th>Personality of NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction of form level and teaching mode</td>
<td>None</td>
<td>Interaction of form level and teaching mode</td>
<td></td>
</tr>
</tbody>
</table>

The results suggest that a follow-up 2-way ANOVA should be conducted on two traits 'Attitude towards English' and 'Personality of the NET'.

**Assumptions of the follow-up 2-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>One outlier, Weak &amp; negative pattern</td>
<td>0.191</td>
<td>None</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>One outlier, No pattern</td>
<td>0.022</td>
<td>None</td>
</tr>
</tbody>
</table>

The results of the checking of assumptions for the follow up task shown in the table above table suggest that the reliability of the analysis of the two dependent variables was good. The significant multiple comparisons which showed up in the further analysis are shown in the table below.
The results in the above table suggest that for the trait 'Attitude towards English', on average, P5 pupils taught by either a NET or a combination of a local and a NET have a more positive attitude than those taught by a local teacher.

(ii) First cohort second administration

Assumptions of 3-way ANOVA

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene's test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>One outlier, No pattern</td>
<td>0.006</td>
<td>3 out of 8</td>
</tr>
<tr>
<td>Help from NET</td>
<td>Too few data points</td>
<td>0.836</td>
<td>None out of 3</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>One outlier, No pattern</td>
<td>&lt; 0.001</td>
<td>4 out of 8</td>
</tr>
</tbody>
</table>

The results of the above table suggest that the reliability of the analysis of all dependent variables was moderate. The significant effect of each analysis is indicated in the table below.

<table>
<thead>
<tr>
<th>Significant effect</th>
<th>Attitude towards English</th>
<th>Help from NET</th>
<th>Personality of NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Teaching mode</td>
<td>School level</td>
<td></td>
</tr>
</tbody>
</table>

The results of the analysis suggest that a follow-up ANOVA should be conducted for the trait 'Help from NET'. Data were available at only one school level and two teaching modes. The result is shown in the table below.

Multiple comparisons results

<table>
<thead>
<tr>
<th>Help from NET</th>
<th>ANOVA p-value</th>
<th>Levene's test p-value</th>
<th>Significant comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.022</td>
<td>0.191</td>
<td>N-&gt;N &gt; N-&gt;L</td>
</tr>
</tbody>
</table>

The results in the above table suggest that for the trait 'Help from NET', on average pupils in medium ability schools who are taught NET for two consecutive years (N to N) have a more positive attitude than those taught by a NET in the first year and a local teacher in the second (N to L).
(iii) Second cohort first administration

**Assumptions of 3-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene’s test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>Weak and negative relationship</td>
<td>0.111</td>
<td>2 out of 6</td>
</tr>
<tr>
<td>Help from NET</td>
<td>Too few data points</td>
<td>0.390</td>
<td>2 out of 5</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>Negative relationship</td>
<td>0.237</td>
<td>2 out of 6</td>
</tr>
</tbody>
</table>

The results of the checking of assumptions shown in the above table suggest that the reliability of the analysis of all dependent variables was moderate to poor. The significant effect of each analysis is indicated in the table below.

<table>
<thead>
<tr>
<th>Attitude towards English</th>
<th>Help from NET</th>
<th>Personality of NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

The results suggest that there is no significant teaching mode effect on all dependent variables in the 2nd cohort 1st administration data.

(iv) Second cohort second administration

**Assumptions of 3-way ANOVA**

<table>
<thead>
<tr>
<th>Dependent variable (Trait)</th>
<th>Spread vs level plot</th>
<th>Levene’s test p-value</th>
<th>Sample size of combination groups less than fifteen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>Negative relationship</td>
<td>0.354</td>
<td>2 out of 6</td>
</tr>
<tr>
<td>Help from NET</td>
<td>No pattern</td>
<td>0.09</td>
<td>1 out of 5</td>
</tr>
<tr>
<td>Personality of NET</td>
<td>Negative relationship</td>
<td>0.002</td>
<td>1 out of 6</td>
</tr>
</tbody>
</table>

The results of the checking of assumptions shown in the above table suggest that the reliability of the analysis of all dependent variables were moderate to poor. The significant effect of each analysis was indicated in the table below.

<table>
<thead>
<tr>
<th>Attitude towards English</th>
<th>Help from NET</th>
<th>Personality of NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td>School level</td>
</tr>
</tbody>
</table>

The results in the above table suggest that no significant teaching mode effect on all dependent variables in the 2nd cohort 2nd administration.

8.3.2.2 Longitudinal Analysis of Student Questionnaire Using Repeated Measures Analysis

The objective of the longitudinal analysis is to investigate quantifiable changes in attitudes to language over time and to determine whether or not the effects of different modes of teaching (i.e. whether the students were taught by a NET, a local teacher or by both), at different levels of form and school can be found in the data. A repeated measures ANOVA was conducted for each of the traits. This was done by investigating the following effects:
**Within-subject effect:**
Does the mean trait scores change across the administrations in 1st and 2nd cohort?

**Between-subject effect:**
Are there differences in the mean trait scores for each trait between teaching modes?

**Between-Subjects Interaction effect:**
Does the pattern of differences between mean trait scores for teaching mode change for each group combination of form and school level?

**Within-Subject by Between-Subject Interaction Effect:**
Does the pattern of differences between mean trait scores for different teaching modes changes in each administration?

For our purposes, the evaluation of Within-Subject by Between-Subject Interaction Effect is the ultimate objective. Therefore analyses were conducted with the aim to illustrate this effect.

**(B) Methodology**

The three-way, repeated measures ANOVA methodology employed was parallel to that used for the analysis of language assessments (see Section 6.2.3.1 above).

**(C) Findings**

**(i) Secondary school**

In the first cohort, teaching mode was not interacting with the time effect for any of the five traits. However, for the trait 'Study Habits', the teaching mode effect was different for each group combination of school and form level, in different administrations.

In the second cohort, teaching mode was not interacting with the time effect for any of the five traits. However, for the trait 'Personality of the NET', the teaching mode effect was different for each group combination of school and form level, in different administrations.

**(ii) Primary school**

The traits 'Study Habit' and 'Motivation' were not included in the primary student questionnaires.

In the first cohort, teaching mode was not interacting with the time effect for any of the three traits.

In second cohort, teaching mode was not interacting with the time effect for any of the three traits.
8.3.2.3 Longitudinal Analysis of Student Questionnaire Using ANCOVA

The objectives and methodology of this analysis are similar to those of the Longitudinal analysis of Language Assessment using ANCOVA (Section 6.2.4.1 & 6.2.4.2 above). Relevant SPSS outputs can be obtained upon request from the research team (see footnote on page 5 above).

Findings

(A) Secondary students

(i) 1st cohort group

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>ANOVA Model</th>
<th>ANCOVA Model</th>
<th>Box test p-value or Levene's test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>2.9</td>
<td>6.6</td>
<td>0.077</td>
<td>1st admin attitude</td>
<td>&lt; 0.001</td>
<td>0.222</td>
</tr>
<tr>
<td>Help from NET</td>
<td>2.2</td>
<td>4.1</td>
<td>0.149</td>
<td>1st admin help</td>
<td>&lt; 0.001</td>
<td>0.134</td>
</tr>
<tr>
<td>Personality</td>
<td>2.6</td>
<td>3.3</td>
<td>0.063</td>
<td>1st admin personality</td>
<td>&lt; 0.001</td>
<td>0.054</td>
</tr>
<tr>
<td>Study habits</td>
<td>1.1</td>
<td>2.8</td>
<td>0.095</td>
<td>1st admin study habit</td>
<td>&lt; 0.001</td>
<td>0.157</td>
</tr>
<tr>
<td>Motivation</td>
<td>2.4</td>
<td>2.4</td>
<td>0.419</td>
<td>1st admin motivation</td>
<td>&lt; 0.001</td>
<td>0.062</td>
</tr>
</tbody>
</table>

Results in the above table suggest that after controlling the effect of the 1st administration, no significant effect of teaching mode effect was observed.

(ii) 2nd cohort group

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>ANOVA Model</th>
<th>ANCOVA Model</th>
<th>Box test p-value or Levene's test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>3.0</td>
<td>11.5</td>
<td>0.475</td>
<td>Interaction effect of school level and teaching mode</td>
<td>0.018</td>
<td>0.046</td>
</tr>
<tr>
<td>Help from NET</td>
<td>3.2</td>
<td>5.6</td>
<td>0.857</td>
<td>1st admin help</td>
<td>&lt; 0.001</td>
<td>0.102</td>
</tr>
<tr>
<td>Personality</td>
<td>8.4</td>
<td>10.2</td>
<td>0.001</td>
<td>Interaction of school level, form level &amp; teaching mode</td>
<td>0.019</td>
<td>0.032</td>
</tr>
<tr>
<td>Study habits</td>
<td>1.6</td>
<td>3.4</td>
<td>0.296</td>
<td>1st admin study habit</td>
<td>&lt; 0.001</td>
<td>0.156</td>
</tr>
<tr>
<td>Motivation</td>
<td>2.3</td>
<td>4.2</td>
<td>0.083</td>
<td>Teaching mode</td>
<td>0.036</td>
<td>0.027</td>
</tr>
</tbody>
</table>

Results in the above table suggest that after controlling the effect of the 1st administration, in the 2nd administration, no significant effect of teaching mode effect was observed.

Results in the above table suggest that after controlling the effect of the 1st administration, in the 2nd administration, the interaction effect of school level, form level and teaching mode was significant in the analysis of 'Personality' factor scores. The interaction effect of school level and teaching mode was significant in the analysis of the 'Attitude towards English' factor scores. The teaching mode effect was significant in the analysis of the 'Motivation' factor scores.
The results in the above table suggest that after taking account of the students' 1st administration response to the questionnaire items relating to the attitude towards English, regardless students' form level, those who were taught by either a combination of NET and local teacher or local teacher had a more positive attitude towards the attitude towards English, than those who taught only by NETs.

The results in the above table suggest that after taking account of the students' 1st administration response to the questionnaire items relating to the personality of the NET, in the analysis of 2nd administration responses, the following effects were indicated. F3 students in low ability schools who were taught by a combination of NET and local teacher had a more positive attitude towards the personality of NET, than those who taught only by local teachers or NETs.

(B) Primary pupils

(i) 1st cohort group

<table>
<thead>
<tr>
<th>Attitude towards English</th>
<th>ANOVA Model F-statistics</th>
<th>ANCOVA Model F-statistics</th>
<th>Box test p-value or Levene's test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help from NET</td>
<td>2.8</td>
<td>3.9</td>
<td>0.383</td>
<td>1st admin help</td>
<td>0.001</td>
<td>0.087</td>
</tr>
<tr>
<td>Personality</td>
<td>3.6</td>
<td>5.2</td>
<td>&lt;0.001</td>
<td>1st admin personality</td>
<td>&lt;0.001</td>
<td>0.071</td>
</tr>
</tbody>
</table>

Results in the above table suggest that after controlling the effect of the 1st administration, in the 2nd administration, no significant effect of teaching mode effect was observed.
(ii) 2nd cohort group

<table>
<thead>
<tr>
<th></th>
<th>ANOVA Model F-statistics</th>
<th>ANCOVA Model F-statistics</th>
<th>Box test p-value or Levene's test</th>
<th>Significant effect</th>
<th>Effect p-value</th>
<th>Effect Eta squared value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards English</td>
<td>0.8</td>
<td>5.1</td>
<td>0.385</td>
<td>1st admin. attitude</td>
<td>&lt; 0.001</td>
<td>0.169</td>
</tr>
<tr>
<td>Help from NET</td>
<td>0.4</td>
<td>7.2</td>
<td>0.052</td>
<td>1st admin. help</td>
<td>&lt; 0.001</td>
<td>0.234</td>
</tr>
<tr>
<td>Personality</td>
<td>4.1</td>
<td>10.3</td>
<td>0.008</td>
<td>1st admin. personality</td>
<td>&lt; 0.001</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Results in the above table suggest that after controlling the effect of the 1st administration, in the 2nd administration, no significant effect of teaching mode was observed.
9 Questionnaires for School Personnel

9.1 Instrument Design

Questionnaires were designed for four categories of school personnel – Principals, NETs, local teachers of English and teachers of subjects other than English – in primary and secondary schools. The questionnaires were broadly similar in content with differences tailored to the different categories of respondent.

The questionnaires consist of two major sections. The first section collects basic background information about the respondent (e.g., age, gender, education level) while the second section focuses on nine aspects of the NET Scheme. In these sections, the items were based around statements developed out of findings from case study interviews with key personnel in the schools including students and from holistic observations of pertinent aspects of the scheme in operation and its underlying rationale.

After piloting, the questionnaires were administered at two points in time during the period of evaluation. On the second administration in both the first and second cohort investigations a new section was added; to all questionnaires with the exception of that administered to the NETs themselves. This section elicited evaluative comments regarding the performance of the NET in the period under review.

The structure and content of the questionnaires is shown in the table below.

<table>
<thead>
<tr>
<th>Section</th>
<th>Theme</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Principal NET NNETs NEngT</td>
</tr>
<tr>
<td>1</td>
<td>Demographic information</td>
<td>6 7 6 6</td>
</tr>
<tr>
<td>II.1</td>
<td>NET Induction programmes</td>
<td>8 20 4 8</td>
</tr>
<tr>
<td>II.2</td>
<td>Desirable qualities and skills of NETs</td>
<td>6 5 6 6</td>
</tr>
<tr>
<td>II.3</td>
<td>Allocation of NETs' duties in school</td>
<td>17 17 17 17</td>
</tr>
<tr>
<td>II.4</td>
<td>Impact of NETs on school</td>
<td>6 5 6 6</td>
</tr>
<tr>
<td>II.5</td>
<td>Collaboration between NETs and local teachers</td>
<td>6 6 6 6</td>
</tr>
<tr>
<td>II.6</td>
<td>Beliefs/practices about teaching and learning English</td>
<td>16 17 17 16</td>
</tr>
<tr>
<td>II.7</td>
<td>Perceptions/evaluations of English proficiency gain as a result of instruction by NET</td>
<td>9 9 9 9</td>
</tr>
<tr>
<td>II.8</td>
<td>Performance evaluations of NETs</td>
<td>15 Nil 15 15</td>
</tr>
<tr>
<td>II.9</td>
<td>Intention to remain in the NET Scheme</td>
<td>Nil 1 Nil Nil</td>
</tr>
<tr>
<td>Total No. of Items: First administration</td>
<td>74 87 75 74</td>
<td></td>
</tr>
<tr>
<td>Second administration</td>
<td>89 87 90 89</td>
<td></td>
</tr>
</tbody>
</table>
In each category, there were common items addressing the theme and allowing comparison between groups. Variations in the number of items in different categories are the result of the inclusion of items focused on the particular concerns and interests of the different groups. For example, sixteen additional items were added to the NET questionnaire focusing on the Induction Programme (section II.1) since the NETs had direct experience of the programmes. The additional items were designed to elicit the NETs' perceptions of their experiences.

Under each of the aspects of the scheme covered in the items in sub-section II.1 to II.8, respondents indicated their degree of agreement or disagreement to a list of statements on a Likert scale of 1 ('strongly disagree') to 5 ('strongly agree'), with 3 indicating 'neutral'. In all sections with the exception of II.5, respondents were invited to give further views or elaborative comments in free response sections. Copies of the questionnaire for school personnel are available on request from the research team (see footnote on page 5 above).

9.2 Objective of the Survey

Similar versions of a comprehensive attitudinal questionnaire were administered to school personnel in two independent samples of schools. Five categories of school personnel were surveyed in each case, namely School Principals, English Panel Chairs, NETs, non-NETs and local teachers of non-English subjects. The aim of the survey was to identify the attitudes, beliefs, practices, perceptions, evaluations and expectations of key players about different aspects of the NET Scheme.

9.3 Sampling for the School Personnel Questionnaires

Questionnaires were sent to the sixteen primary schools. The number of school personnel respondents from primary schools is small (N=80 – 16 in each personnel category) due to the small number of schools participating in the project; the response rate among primary school personnel is on average 66 %.

Corresponding questionnaires were sent to a stratified random sample of 49 secondary schools, representing schools of different ability levels (High, Mid, Low) from a population of approximately 350 NET Scheme schools. One questionnaire each was sent to each category of respondents. The response rate among secondary school personnel is on average 86%.

9.4 Analysis of questionnaire results

Descriptive statistics as well as non-parametric group comparison statistics (Mean Rank, Kruskal-Wallis significance figures, and Mann U Whitney significant multiple-comparison results) were compiled. These non-parametric analyses were employed since the relatively small sample size for the questionnaires (n = 209 for secondary; n = 53 for primary) precluded the use of other, more powerful, statistical tools.

Mean rank for each item and group means and standard deviations were first computed and then analysed for significant differences among groups by means of the Kruskal Wallis Test. If a difference was indicated this was traced by means of the Mann U Whitney Test which indicated the nature and direction of the difference. Detailed results of these tests are available upon request from the research team (see footnote on page 5 above).
In the following sections, findings from the seven major sections of the questionnaire will be summarised and discussed with a view to informing the formulation of recommendations. A report summarising respondents’ written responses to the open-ended questionnaire items can be found in Appendix VII.

9.4.1 Desirable qualities and skills of NETs

Both the local school personnel and NETs tend to agree that NETs should have experience of teaching English as a foreign language. However, secondary school NETs and local school personnel seem to disagree with each other on two qualities: namely having experience of teaching Asian pupils and knowing the learning styles of Hong Kong students.

The NETs tend to think that they are important while the locals tend to think they are not.

This suggests that induction programmes for NETs should help the NETs to become more familiar with both the learning styles and cultural background of Hong Kong students, and only NETs with experience in teaching English as a foreign language should be hired.

9.4.2 Allocation of duties in school

The statements under this section are subdivided into teaching-duties and non-teaching duties. The response patterns in both sections in both administrations of the questionnaire show that the secondary school NETs and the local school personnel have some significant discrepancies in their views on the duty allocation of the NET. The primary school data, however, shows few significant group comparisons, perhaps due to the small sample size. Secondary school local school personnel (with some exceptions, which will be discussed below) seem to lean more towards agreement with a restrictive range of functional roles for NETs (mainly cultural and extra-curricular ones). However, NETS themselves seem to disagree with some of these restrictive functional beliefs which limit the range of their potential professional roles. Major points of interest are summarised below:

Allocation of teaching duties

Item 13. NETs should teach mostly speaking and listening skills.

No significant group comparisons are found for the primary school data. They all tend to moderately agree with this statement (means range from 3.31 to 4.11).

However, secondary school NETs tend to disagree with this statement (mean=2.8) while secondary school principals, English panel chairs and other non-English local teachers tend to agree with it (means: 3.45, 3.51, 3.59). Surprisingly, secondary school local English teachers tend to agree with the NETs (mean=2.94). Perhaps the local English teachers do not want the NETs to take up only what they call the “easy” tasks which do not involve a heavy marking load (confirming the case study interview results).

Item 14. NETs should teach mostly language arts, e.g., verse speaking, poetry writing, drama, etc.

No significant group comparisons are found for the primary school data. They all tend to moderately agree with this statement (means range from 3.14 to 3.56).
Secondary NETs disagree with this statement (mean=2.52) while secondary local respondents lean towards the agreement pole (means range from 3.08 to 3.53).

Item 15. The schools should give all students equal opportunity to be taught by the NETs.

No significant group comparisons are found for the primary school data. They all tend to agree with this statement (means range from 3.5 to 4.14).

There is, however, disagreement between the secondary school NETs and their local counterparts. The NETs tend to disagree with the statement (mean=2.63) while the local school personnel lean towards the agreement pole (means range from 3.16 to 3.72), confirming the case study interview data: the NETs tend to feel that they have been spread too thinly among too many classes and they do not have sufficient time to develop a good relationship with their students as they see too many of them and for too short a time each week.

In view of the above findings, how to balance fairness with the amount and quality of NET contact should, therefore, be a major issue in future planning of the NET Scheme.

Item 16. NETs should teach junior form students rather than senior form students.

Interestingly, this is one of the few statements where there is no statistically significant discrepancy found between the views of NETs and other local respondents. The primary school respondents tend to disagree with this statement (means range from 2.11 to 2.86). The secondary school respondents also tend to disagree with this statement (means range from 2.38 to 2.84).

Allocation of non-teaching duties

In this section, we shall first summarize the functional roles about which little disagreement is found (mainly cultural and extracurricular ones) and then we shall look at those functional roles where NETs seem to hold somewhat different views from local respondents. The primary school data patterns are similar to those of the secondary school and where there are significant differences, they are noted in brackets.

(l) Functional roles of NETs with which all respondents tend to agree

Item 18. Invigilator.
Item 19. Language advisors on extra-curricular activities.
Item 21. Language advisors for other colleagues.
Item 22. Coaches for inter-school verse-speaking competitions and debates.
Item 24. A major part of the NET’s workload should be spent on developing school-based English teaching materials.
Item 26. NETs should help to improve written materials, such as exam scripts, written by local teachers.
Item 28. NETs should be assigned to teach all English lessons of at least one class. (Although all groups tend to agree, the NETs are significantly HIGHER in their agreement than the local respondents).
Item 29. NETs should be responsible for the promotion of English cultural activities for the students. (Although all groups tend to agree, the NETs are significantly lower in their agreement than the local respondents).

(ii) Functional roles of NETs with which all respondents tend to disagree

Item 17. Class teachers.
Item 20. Panel chairpersons. (Primary school NETs, however, tend to be neutral on this).
Item 27. NETs teaching orals lessons only should help reduce local English teachers' marking load, e.g., by marking some of the students' compositions. (NETs, school principals and panel chairs tend to disagree but local English teachers and non-English teachers tend to be neutral on this).

Interestingly, both NETs and local respondents all disagree that NETs should be assigned as class teachers. This is perhaps due to a common recognition that NETs, with a lack of familiarity with the students' L1 and cultural backgrounds, cannot perform the house-keeping and counsellor duties of class teachers.

(iii) Functional role of NETs on which local respondents and NETs tend to express different views

Item 23. NETs should help to develop teaching materials for non-English subjects (e.g., History) in EMI schools.

For secondary schools, while NETs tend to be neutral on this, the local respondents tend to disagree. For primary schools, both the principals and NETs tend to moderately agree while the panel chairs and local English teachers tend to disagree, and the local non-English teachers tend to be neutral.

Summary of this section

The above findings point to the potential sources of conflict in expectations and roles between the NETs and local teachers (similar patterns are observed in the first administration of the survey questionnaire). It is recommended that in future planning of the NET Scheme, the rationales underlying the differential duty allocations of local and NET teachers should be widely discussed in the school community to achieve a consensus acceptable to both locals and NETs. The present findings indicate that consensus is most likely to be found in the recognition of the cultural, language arts and extra-curricular roles of NETs.

9.4.3 Impact of the NET scheme on schools

Responses to the following six statements were elicited:

Item 30. The introduction of NETs has reduced the workload of other English teachers.
Item 31. NETs have created an authentic English speaking environment for the students.
Item 32. NETs have enhanced the quality of English extra-curricular activities (e.g., drama, verse speaking, poetry writing, etc.).
Item 33. The presence of the NETs has raised the image of the school.
Item 34. My knowledge of the English language and the western culture has increased since the NET has come.
Item 35. The introduction of NETs in the schools has raised local teachers' English proficiency.

Similar to the patterns found in the first administration of the questionnaire survey, on the whole, primary school respondents tend to indicate a more positive view of the impact of the NET scheme than secondary school respondents. They tend to agree or moderately agree with all of the positive statements listed in this section except the one on reduction of local teachers' workload, with which both NETs and local respondents show disagreement.

The secondary school data indicates a greater discrepancy between the NETs and the local respondents. Although all respondents tend to agree or moderately agree with the positive statements, the NETs tend to agree more while the local teachers tend to agree less or lean towards disagreement (e.g., on items regarding workload reduction, Western knowledge and English proficiency improvements due to NETs). Similar patterns are found in both administrations of the survey questionnaire, confirming the existence of a mismatch between the NETs' and the local teachers' perceptions of the contribution of the NETs. This perceived mismatch is likely to create a serious source of conflict as well as discontent, especially strongly felt by the local English teachers (see also Case Study findings). A lack of communication and interaction between NETs and local teachers is also suggested. The future planning of the NET Scheme has to explore and identify feasible ways of tackling the communication problems between NETs and local teachers, especially in secondary schools (see also findings in the next section).

9.4.4 Collaboration between NETs and local teachers

The response patterns are similar to those found in the first administration of the questionnaire survey. Both NETs and local English teachers in the secondary schools tend to disagree with statements on collaboration while the situation is slightly better in the primary schools (e.g., observing each other's lessons, meeting to share teaching ideas, sharing English classes and practising team teaching, developing teaching materials together. Means on these items range from 2.38 to 2.97 for the secondary school data, and 2.86 to 3.54 for the primary school data).

The lack of a peer lesson observation culture among local teachers in Hong Kong prevents the collaboration and cross-fertilisation of teaching experiences among local teachers themselves as well as between NETs and locals. These response patterns suggest that NETs and local English teachers each work in their own classrooms, with little sharing and understanding of what each other is doing (see also Case Study findings). The results also suggest that there is not much actual professional sharing or collaboration going on in the schools, especially at the secondary level. Future planning of the NET Scheme has to explore ways to tackle these problems or else the possible contribution of NETs to the overall professional culture of English teaching in the schools is likely to be limited (however, the situation appears to be slightly better in the primary schools).

9.4.5 Beliefs and practices regarding the teaching and learning of English

Similar response patterns are found in both administrations of the survey questionnaire. NETs and non-NETs do share many teaching beliefs and practices (e.g., both agree that doing projects raises general language proficiency) although they in reality they demonstrate very different teaching beliefs and practices.
These differences include the following. Local teachers tend to assign homework every day, tend to be more textbook-based, tend to correct students as soon as they make an error, teach English culture less frequently, and are spoken to in Cantonese by students much more frequently. It is recommended that future planning of the NET Scheme should build on the common ground shared by NETs and non-NETs while exploring ways of providing opportunities for NETs and non-NETs to share and discuss their teaching beliefs and practices in an open, egalitarian atmosphere to facilitate professional interchange and cross-fertilisation as well as the sharing of different perceptions of what count as effective teaching practices. (However, the case study findings indicate that more likely than not, it is the NETs who get converted into the local teachers' ways of teaching rather than vice versa due to the pressure of the local school culture; see Case Study findings for details).

9.4.6 Perceptions of students' English proficiency gain as a result of instruction by NET

Again similar response patterns are found in both administrations of the survey questionnaire. In general, both NETs and non-NETs tend to agree or moderately agree that students have become better in speaking, listening and pronunciation, and have more confidence in using English to communicate. Both secondary school NETs and non-NETs tend to be neutral or in disagreement on statements about students' improvement in reading, writing and grammar. And in general, secondary school local English teachers tend to indicate more disagreement on statements of improvement in the areas of reading and writing than primary school local teachers and NETs.

The response patterns confirm the perception that the NET impact is more felt in the speaking and listening areas and their impact is perceived as greater in primary than secondary schools.

9.4.7 Performance evaluations of NETs

This section summarises the analysis of the statements added to the second administration of the questionnaire survey soliciting views on the performance of the NETs. The response patterns in the secondary school data indicate a mismatch between the evaluations of local school personnel and the NETs' own evaluation of themselves. For instance, while the NETs tend to rate themselves highly on qualities such as being hardworking, responsible, conscientious, genuinely concerned, adaptable, enthusiastic in teaching and reflective (with group means all above 4), the local school personnel tend to rate the NETs less highly on these qualities (with group means between 3 to 4, and significant multiple-group comparison results are found). Local English teachers also tend to disagree that NETs perform well in handling classroom discipline and counselling students on their English learning difficulties. English panel chairs also tend to disagree that NETs perform well in school-based curriculum adaptation and counselling students on their English learning difficulties. Interestingly NETs tend to agree or moderately agree on all of these positive statements about their performance.

The situation is better in the primary schools. The response patterns of the primary school data indicate general agreement among both NETs and non-NETs about the positive evaluation of the performance and qualities of the NETs (though still with the NETs being much higher in agreement than the local respondents).

The above results indicate a mismatch between the NETs' own self-perception and evaluation of their performance and professionalism and the local school personnel's evaluation of them, especially in the secondary schools. The findings of the attitude questionnaire confirm the case
study findings that NETs and their local hosts do not often seem to see things eye to eye. Viewed from this perspective, a lot of work needs to be done to facilitate the successful integration of NETs into local schools (please consult the Case Study findings for suggestions and recommendations).
10 Questionnaires for Parents

10.1 Instrument Design

The questionnaires for primary and secondary school personnel provided the basis for the design of questionnaires for parents.

Like the questionnaires for school personnel, questionnaires for parents consist of two major sections. The first section collects basic demographic information, while the second section focuses on seven aspects of the NET Scheme.

The questionnaire was piloted, trialled and improved before being used as the sole method for eliciting the parents' basic background information and their views of the NET Scheme. Two major surveys were conducted with the first one administered in mid-April 1999 and the second in March-April 2000. The parents were asked to respond to statements through a five-point Likert scale. Under each category, respondents indicated their degree of agreement or disagreement to the statements on the scale of 1 ('strongly disagree') to 5 ('strongly agree'), with 3 indicating 'neutral'.

The structure and content of the questionnaires is shown in the table below.

<table>
<thead>
<tr>
<th>Section</th>
<th>Theme</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Demographic information</td>
<td>10</td>
</tr>
<tr>
<td>II.1</td>
<td>Desirable qualities and skills of NETs</td>
<td>6</td>
</tr>
<tr>
<td>II.2</td>
<td>Allocation of NETs' duties in school</td>
<td>9</td>
</tr>
<tr>
<td>II.3</td>
<td>Impact of NETs on school</td>
<td>4</td>
</tr>
<tr>
<td>II.4</td>
<td>Collaboration between NETs and local teachers</td>
<td>4</td>
</tr>
<tr>
<td>II.5</td>
<td>Beliefs/practices about teaching and learning English</td>
<td>17</td>
</tr>
<tr>
<td>II.6</td>
<td>Perceptions/evaluations of students' English proficiency gain as a result of instruction by NET</td>
<td>8</td>
</tr>
<tr>
<td>Total No. of Items: First administration</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Second administration</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

In all sections with the exception of II.5, respondents were invited to give further views or elaborative comments in free response sections.

The questionnaires were administered at two points in time during the period of evaluation. In section 10.3, findings for each of the five major aspects are summarised.

10.2 Sampling for the Parents' Questionnaires

As well as selecting parents from the control and experimental groups, i.e. those whose children were taught by NETs and those who were not, questionnaires were administered to
parents of senior form students who were expected to have a longer history of involvement with the schools concerned and therefore to have a more objective perspective on the benefits of the scheme and the best way for it to be implemented.

10.3 Objective of the Surveys

The parents' questionnaire was designed to collect information about the reactions and views of parents towards the NET Scheme. Specifically, the questionnaire attempted to identify the parents' attitudes, beliefs, perceptions and expectations towards different aspects of the NET Scheme. The questionnaire was designed to provide information regarding the interests and views of the parents in five major areas of investigation:

- Teacher qualities / skills
- Allocation of duties
- Impact on school
- Collaboration between NETs and Local Teachers
- Issues about teaching and learning English

10.4 Analysis of the Questionnaire Results

10.4.1 Teacher qualities / skills

Most of the parents involved in the surveys were in favour of the NETs having experience in teaching Asian students (66.7%) and teaching English as a foreign language (87.1%). They would like the NETs to have knowledge about Hong Kong learning modes (80.3%) and Hong Kong culture (72.9%). However, more parents (46.1% versus 34.2%) thought that the NETs did not need to know Cantonese and more than half of the parents (54.6%) disagreed that the NETs should have oriental appearance.

10.4.2 Allocation of duties

Many parents preferred the NETs to focus on teaching listening and oral skills (78.9%) as well as literature (64.5%). Most of them (87.1%) either agreed or strongly agreed that the school should give all students equal opportunity to be taught by the NETs. A majority of parents (77.9%) felt the NET should teach all junior form students in the school. The parents would like the NETs to act as tutors in extra-curricular activities (74%) instead of being a class teacher (52.8%). Most (83.1%) thought that the NETs should assist other English teachers in developing teaching materials and they should be given the opportunity to teach at least one full English class. In the minds of parents, in addition, the NETs should be responsible for promoting English culture (90.5%).

10.4.3 Impact on the school

Positive comments were obtained from this part of the investigation. Almost all parents (89.6%) thought that the NETs provided a good English speaking environment for their children and that they enhanced English related extra-curricular activities (83.4%). More than half of the parents (52.1%) thought that the NETs also enhanced the English of other English teachers. There was a split of views in the item regarding school reputation being boosted by the
presence of the NETs. Almost equal number of parents opposed or agreed with this statement (34.7% disagreed versus 34.1% agreed).

10.4.4 Collaboration between NETs and Local Teachers

Most parents agreed that the NETs and local teachers should strengthen collaboration and communication by observing each other’s lesson (80.6%), sharing each other’s expertise (90.5%), and helping local teachers with problems in English grammar and usage (81.5%). However, not as many parents (56%) regarded co-teaching with local English teachers as being a very useful practice.

10.4.5 Issues about teaching and learning English

The findings of this aspect of the investigation reflected the parents’ attitudes, beliefs, perceptions and expectations about teaching and learning English in general as well as NET related issues.

10.4.6 General

Many parents thought that students should be given English homework every day (68.7%) and English teachers should give immediate responses to students’ errors (85.2%). They thought that students should always speak in English with their English teachers (91.7%) and therefore using Cantonese in the lesson should be discouraged (53.6%). English teachers, on the other hand, should always speak in English with their students (55.8%).

Games were generally viewed by the parents (68.8%) as important for their children’s English learning as they believed that students learned English most effectively through playing games. The parents (90.8%) regarded helping students to enjoy learning English to be more important than enabling them to do well in exams. To make the English lessons more interesting, most parents (84.5%) felt that the teachers could share their personal experiences with the students. Many of the parents (70.6%) saw learning English as involving learning the culture related to the language.

In the NET related teaching and learning issues, the parents (78.2%) thought that NETs were more able than local teachers to introduce cultural aspects and values of the western world to the students, and that students would benefit more in oral (88.8%), listening (84%), and pronunciation (87.9%) if taught by a NET. In addition, most (82.5%) thought students would become more confident to speak in English after being taught by a NET.

Nearly a third of parents (26.7%), disagreed that NETs would enable their students to gain good results in English exams. They did not believe that students taught by local teachers would lag behind in their English development compared to students taught by the NET. Neither did most parents (67.7%) believe that students with low English ability should not be taught by the NET.

More parents (45.8% agreed versus 21.6% disagreed) felt that NETs would experience more discipline problems than the local teachers in English classes. Most (79%) felt that knowing some Cantonese would enable NETs to understand students’ learning problems. However, a majority (61.5%) felt that meeting students only once a week would make it difficult for the
NET to establish a good relationship with the students. When it came to choosing either NETs or local English teachers, slightly more parents opted for NETs to their local counterparts (32.3% versus 21%).

Comparison between the findings of the two administrations of the parent questionnaire surveys revealed stability of these views over time.
11 Discussion

In this section, the findings of the study will be discussed in relation to the three research questions formulated to guide the evaluation based on the three major objectives for the NET scheme as a whole (please refer to Section 4 above). These objectives were to enable native-speaking English teachers to enhance the teaching of English by:

1) acting as English language resource persons in the schools;
2) assisting in school-based teacher development; and
3) helping to foster an enabling environment for students to speak English and practise their oral skills.

11.1 Objective 1
Acting as English Language Resource Persons in the Schools

The Questionnaire and Case Study findings are the primary sources of evidence of the extent to which the first objective of the scheme had been achieved within the first two years of operation. In each of the following sections, direct evidence of achievement of the objective is presented first followed by indirect evidence and counter evidence as appropriate.

11.1.1 Evidence from the Questionnaire Findings

Full details of the findings from the three questionnaire studies can be found in Sections 8-10 above. Pertinent findings which address Research Question 1 and provide evidence of achievement of the first objective of the scheme are included in this section.

**DIRECT EVIDENCE**

*NETs successful in creating resources for language learning and development*
Findings from the questionnaire for school personnel and parents provide evidence of the achievement of the first objective of the scheme. They show that local teachers and principals tend to agree that the NETs have created an authentic English speaking environment for the students, enhanced the quality of English extra-curricular activities, raised the image of the school, raised local teachers' English proficiency and knowledge of western culture. These are all aspects of serving as an effective English language resource person in the school.

*Students have gained confidence in using English*
Responses to the open-ended items support this, with 20% of respondents volunteering written comments agreeing that the arrival of the NET has provided an authentic English-speaking environment for students to speak "genuine" English. Moreover, about 15% of the respondents to the open ended items perceive students to have become more active and confident in using English to communicate or more enthusiastic in learning English as a result of the NET exposure. This positive view however, should be moderated by other remarks from a smaller number of teachers which suggest that the impact of the NET is far too limited and confined to the small privileged group being taught by NET in all English lessons.

*Agreement as to NET role as resource person*
20 local respondents to the questionnaire, including a number of principals responded to the open-ended question related to Allocation of Duties. These personnel tend to agree that NETs
should be responsible for more English-related extra-curricular activities. Some suggestions they provide are introducing an English Club as well as the English Corner; arranging linguistic and cultural exchange activities with expatriate students and running inter-school activities in general. This reflects their wish to expose students to NET influence outside the classroom in a more casual and natural environment.

**Performance evaluation indicates success**

Evidence of the success of the NET in these aspects is provided in written comments volunteered by questionnaire respondents in the section on the performance evaluation/self-evaluation of the NETs. Local respondents agreed that NETs performed well in designing IT teaching materials, organizing English learning activities, providing advice on and creative ideas to local teachers, showing enthusiasm in their teaching and providing support to staff with problems in English teaching.

**COUNTER EVIDENCE**

**Differences of opinion between NETs and others**

However, the questionnaire findings also reveal a discrepancy in perceptions of the NET impact between the NETs themselves and their local colleagues. The NETs believe they have the potential to play the role of resource persons well. Local teachers, however, while agreeing that the NETs could have contributions in these aspects, tend to be more aware of the limitations of one NET with 1000 students. The impact, to them, potential and actual, was limited. These perceptual dissonances reveal a lack of communication and genuine collaboration between NETs and locals. (See Section 9.4.4 above and Section 3.2 below addressing Objective 2 of the scheme).

**NET perceptions of limitations**

NET respondents tend to rate their impact as limited. This is believed to be the direct outcome of limited resources and misallocation of duties. Unrealistic expectations had been placed on one NET, for example, to effect marked improvement or changes to the curriculum, students' learning motivation and the whole school community. In fact, as one local teacher pointed out, people should not have too high an expectation since the provision of one NET to serve 1000 students was not going to make much difference. In order to have the NETs used to their full potential, another NET suggested that they should not be requested to teach as many classes as the local teachers so that time could be spared for duties tailored to their expertise.

**NETs not treasured as change agents at the school level**

In written comments given in the self-evaluation section of the questionnaire, NETs pointed out that schools were not able to recognize the special skills and attributes of the NETs, but simply placed them in a pre-determined mould, disregarding the uniqueness of their talents and the needs of the students. According to one respondent, NETs are caught in a predicament between the expectations of the Education Department for NETs to act as change agents and the resistance of local staff who cling to traditional practices. Therefore, even though NETs might have very original and creative ideas on teaching, they might not be treasured as resource persons in the schools.
11.1.2 Evidence from the Case Study Findings

Full details of the Case Study Findings can be found in Section 7 above. Pertinent findings which address research question 1 and provide evidence of the achievement of the first objective of the scheme are included in this section.

The section is organised according to the source of the evidence, starting with evidence in the views expressed by school personnel and students and going on to report evidence gathered from the observations of the Case Study team in the day to day life of the school and in lessons taught by NETs and by local teachers.

11.1.2.1 Views of School Personnel

(A) Views of Principals

DIRECT EVIDENCE

School Principals satisfied with performance in this aspect of the NETs’ work

Principals of the Case Study schools were very supportive of the NET Scheme and expressed high expectations of the NET and satisfaction with the performance of the NET so far. This satisfaction related specifically to the NET’s role in serving as a resource person in the school.

Instructional materials design

For example, the principal of SG (a practical school) had high hopes that the NET would bring in new insights and help to revamp the English curriculum to make it more suitable to the needs of the students. These hopes were realised in several respects.

Teaching innovations — drama & creative writing

The principal of PB (a primary school with high ability students) was very proud of her success in utilising the NET and very complimentary about the NET’s contribution to teaching in the form of innovations such as drama and creative writing.

NETs’ role in running the English Corner and Coaching for competitions

Local teachers recognised the unique contributions made by the NETs. For example, most NETs played an essential role in establishing, resourcing and managing the English Corner in the schools. NETs helped coach students to take part in several inter-school language-related competitions (drama, speech festival, etc.) and several obtained major prizes.

Introducing English culture through extra-curricular activities

The panel chair in SF mentioned how the NET had made her presence and effects increasingly noticeable by leading assemblies and introducing English culture through extra-curricular activities. She said that without the support and presence of the NET, some of these activities might not have been realised.
**Views of NETs**

*NETs clear and confident about their role*

Most of the NETs interviewed expressed certainty and confidence about the positive influence they were having on students; despite the constraints they experienced arising from the school system (See Section 7.3.2.2.B above).

*Focus on communicative activities and classroom atmosphere*

NETs introduced communicative activities they felt to be more conducive to language learning and valued good student-teacher relationships in the classroom. For this reason they generally promoted a less stringent regime in their classes, which paid dividends especially among higher ability students, in terms of a classroom atmosphere more conducive to the practice of oral skills.

*Better preparation the key to success in handling difficult classes*

It is unfortunate that these approaches sometimes had to be abandoned in poorly disciplined classes in favour of strategies, learned from their local colleagues, more conducive to handling deliberately disruptive students (see Section 7.3.2.2 B above). There is evidence in the Case Study findings that NETs who were given more realistic expectations before joining the school and who were able to benefit from a team teaching mode with a local English teacher would be better able to handle such problems.

11.1.2.2 View of Students

*Enjoyable lessons involving lots of games with a less forbidding approach*

One of the reasons for the success of NETs in the primary schools is related to their role as resource persons. Most pupils liked to have lessons with the NETs because the lessons were enjoyable and involved lots of games. In PA, the lower primary pupils who displayed obvious affection for their NET described their NET as one whose lessons were always enjoyable and who was less forbidding than some of their local teachers. Even though most students did not favour the idea of having only the NET to teach them due to potential communication difficulties, most of the junior pupils wanted more NET lessons. It is interesting to note that during the last interview, some P.3 students took the initiative to use English to talk about their experience with the NET. The majority of students (PA, PB, SD, SE, SG) found the lessons taught by the NET more activity-based and therefore more enjoyable. Secondary students expressed similar satisfaction with the teaching approach of their NET. They felt that the NET was very warm and friendly.

*Informal, more liberal, emphasising positive affect and communication*

The less formal approach adopted by some NETs, with an emphasis on enjoyment, communication and facilitation of learning rather than stringent control constitutes evidence of the NETs bringing in a fresh approach to the teaching of English, part of the role of serving as a resource person in the school as we have defined it in our research questions.

*Use of humour in a dynamic approach using a variety of interesting tasks and activities*

Young, dynamic, humorous NETs (as opposed to NETs who are more formal and serious; NETs who scold students for speaking in L1) seem better able to get even low-ability students to participate in class activities and interactions (PA). In our case study data, we see that young, dynamic, humorous NETs also tend to use a greater variety of interesting activities and tasks.
while the more formal, serious and somewhat distant NETs (e.g. SC and SF) tend to cling to textbook worksheets and tasks.

**Enjoyment based activities (more suitable for junior forms which do not suffer exam pressure)**

However, students in a high ability secondary school were of the strong opinion that the NET may be more suitable for junior forms, but not for classes under exam pressure because what they needed was skills and knowledge to pass exams, and not the enjoyment-based activities the NET excelled at.

**More accurate and standard pronunciation & grammar, more friendly, and game-oriented**

Students acknowledged that their listening skills and confidence in speaking seemed to have some improvement and that the NETs had considerable merits including having more accurate and standard pronunciation, more accurate grammar, being more friendly, and more game-oriented in teaching. On the other hand, these students would prefer to have a local teacher to do most of their teaching so that when they had problems, they could ask about them in L1. Some students in SF said that if their NET could understand Cantonese, they would like her lessons much better. All these highlight the fact that the NET was introducing innovative approaches and attributes to the teaching of English, even if some of these did not match the predilections of the students.

**Free writing, newspaper reading and text-based exercises avoiding spoon-feeding**

Students in SC ‘complained’ that they had to do a lot of free writing, newspaper reading or text-based exercises mainly on their own without much explanation or concrete feedback from the NET. This suggested that the NET was introducing resource-based and task-based teaching and attempting to give more autonomy to the learners than they might be used to in the approaches adopted by local teachers.

**NET accommodates approach to needs of students**

A few students from the same F2 class in SF appreciated the teaching of the NET. They said that even though they had some difficulties with understanding the NET at the beginning, they had later overcome the problem because the NET would try to use simpler words, illustrations and body language to get her meanings across. They also said that they were quite used to having English lessons taught in English, as this was the practice in their former primary schools.

**NET appreciated by higher proficiency students**

High L2 proficiency students in non-public exam classes across all sampled schools in general have positive attitudes towards NET teaching. They hold the NETs' English speech models and expertise in high regard and feel that they can learn better and acquire more standard English from the NET. Their positive self-image (though few would explicitly claim to have high proficiency in English), positive attitudes toward NET teaching, plus their own adequate L2 linguistic ability to interact with the NET (e.g. students demonstrated and reported few communication problems in the NET's classes) all seem to serve as a good foundation to enable them to participate in NET classes and benefit from NET teaching.

**Outspoken students more comfortable with the NET**

In one student interview, a student with a higher L2 proficiency from SC was advising the others with lower L2 proficiency to be daring enough to speak up and ask questions because the
NET was very willing to answer questions on a one-to-one basis when she walked near to the students. In not-very-high L2 proficiency classes, preferred learning style and culture seem to be important factors affecting student participation and interest in NET lessons. Those students who were outspoken, outgoing, risk-taking, tolerant of uncertainty, eager to make guesses and attempt to solve communication problems, not afraid of making mistakes or being laughed at are found to be participating the most in interactions with the NET and in class activities. These students also seem to enjoy NET lessons more. In contrast, those students who seem to be less adventurous, less outspoken and less tolerant of uncertainty are found to be quiet or not engaged in lessons taught by the NET. Their facial expressions show that they seem to be at a loss (e.g., not knowing what's happening, or what to do, or what the NET is talking about).

Apprenticing pupils into the culture of L2 speaking and “acting” by modelling L2 speech
The NET also seems to have a unique role to play in apprenticing pupils into the culture of L2 speaking and “acting” by modelling naturally how target L2 speakers speak and act, with appropriate paralinguistic features - the verbal and non-verbal expressions that go with the speaking.

COUNTER EVIDENCE

Pupils love to be taught by less strict NET
Comparatively speaking, the upper primary students interviewed in PA expressed more difficulty in understanding the NET and had more reservations about being taught by the NET than the lower primary students. The P5 group we interviewed said they still loved to be taught by the NET because the local teacher was very strict with them. However, they complained that lessons taught by the NET were somewhat monotonous and lacked variety.

Higher expectations
There is evidence, in some negative comments made by secondary students, of NETs having higher expectations in their teaching approaches than local teachers. For example, although secondary students (SE) commented on the insensitivity of the NET to their learning difficulties, they also said the NET always had ‘unrealistic’ expectations of their performance and made high demands on their language accuracy. While higher expectations may be viewed as a positive attribute, but in this case (SE) it seemed to indicate a mismatch between the unrealistic expectations of the teacher and the capabilities and self-perceptions of the students.

Not exam-oriented enough
On the other hand, the NET (SE) failed to teach them the exam skills F6 students wanted to learn. From a different perspective, these approaches might be considered to constitute fresh approaches of value to the students – i.e. an approach which challenges their abilities rather than providing them with test-taking skills. However, the school culture is probably not ready to deny F6 students the exam preparation training they have come to expect. This may be too radical an innovation for the NET to introduce.

NET lessons a useful complement to exam-oriented syllabus
Indeed while making negative comments on the NET, students also expressed their appreciation of the value of the NET. A group of F6 students in a middle banding school (SF) who were taught by the NET for one oral lesson every cycle welcomed the teaching of the NET for a small percentage of their English lessons. This appreciation was tempered by explaining first, that local teachers who understand the exam syllabus better should be the chief persons to help them through the public exam and second that they experienced difficulties in
understanding the NET when more abstract concepts were handled and complex structures used.

*Focus on production, avoidance of L1 use in class*

Other negative comments on the NET from secondary students are also indicative of their relative discomfort with an inherently beneficial and fresh approach. Examples of such approaches include "complaints" that the NET gave students lots of writing activities and did not use Cantonese in the lessons.

11.1.2.3 NET Effects through Extra-Curricular Activities

*Modelling appropriate language and coaching students in culturally appropriate behaviour*

The unique role of the NET is well illustrated in drama or acting activities with students, both inside and outside the classroom. In such activities the NET can model appropriate language and coach students in culturally appropriate ways of acting, gesturing and moving that accompany L2 ways of speaking. It seemed that extra-curricular activities (ECA) might have provided a better means through which a positive relationship between the students and the NET could be developed.

*Increased staff and student opportunities to use English for socialisation purposes*

Although it was difficult to record unplanned interactions taking place outside the classrooms, evidence can be found in the field observations of our researchers to show that the presence of the NETs has increased staff and student opportunities to use English for socialisation purposes. For example, some students in SG recounted joyfully their experience of having a drink and a nice chat with the NET after playing volleyball together. The NET in SF also reported an interesting activity she had had with a group of boys (all voluntary participants) during which she taught them how to make pancakes and explained the story behind this Shrove Tuesday custom.

*ECA and socialisation*

The NETs in SC and PB also expressed a stronger sense of achievement in organising extra-curricular activities (e.g. drama, role-play, creative writing workshop, etc.) for the students and having other sorts of social gathering (e.g. lunching together, picnicking together, etc.). To the NETs, these experiences were more memorable than those in the classroom. It is also through these non-institutional social interactions that students experience a meaningful and authentic use of language.

*Helping students enact different L2 social roles; modelling, and coaching students in acting and expressing emotions*

The students seem to have enjoyed a drama activity immensely and the NET provided appropriate cultural modelling and coaching to help the students to enact the different L2 social roles. In another drama session with the students after school (as an extra-curricular activity), the NET modelled and coached the students in acting out different kinds of emotions that go with different L2 utterances. For instance, the NET demonstrated what to say (and what facial expressions to use) when you greet someone whom you have not seen for a long time. The students seemed to greatly enjoy the activity and took up different personas as they produced the L2 utterances with the appropriate accompanying facial expressions, intonations and gestures modelled by the NET. While a local teacher can also possibly lead such drama
activities, it would take someone who has been immersed in the L2 culture for some time to successfully perform roles played by the NET.

11.2 Objective 2
Assisting in School-based teacher development

The Questionnaire and Case Study findings are the primary sources of evidence of the extent to which the second objective of the scheme had been achieved within the first two years of operation.

11.2.1 Evidence from the Questionnaire for School Personnel and Parents

COUNTER EVIDENCE

Lack of a sharing culture
There is not a strong culture of peer lesson observation among local teachers in Hong Kong. This prevents cross-fertilisation of teaching experiences among local teachers themselves as well as between NETs and locals. The response patterns to the questionnaire suggest that NETs and local English teachers each work in their own classrooms, with little sharing and understanding of what each other is doing. The results also suggest that there is not much actual professional sharing or collaboration going on in the schools, especially at the secondary level. (See Section 9.4 above).

Little done to reinforce collaboration
One panel chairman claimed that they had never tried on any of the practices listed in the questionnaire (observing each other lessons, sharing expertise, team teaching and so on) to strengthen collaboration and communication between NET and local teachers. This shows that in particular schools, little has been done to reinforce collaboration and the panel chair seemed to have failed to function as leaders encouraging collaboration.

Peer observation unwelcome
As revealed by findings from the questionnaire items, local respondents tend not to welcome the idea of peer-observation of lessons. Three NETs seem to be well aware of this local culture. According to their explanation, local teachers might feel threatened by having a NET observe their lessons and they are in general not receptive if the NET appears as a consultant or foreign expert rather than a peer worker to them. This kind of conflict might constitute poor collaboration in one way or another.

NETs should not work in isolation
Written comments in response to the open-ended questionnaire item on Allocation of Duties provided by both local teachers and NETs emphasise the need for collaboration, but suggest that insufficient collaboration may be taking place. One of the main objectives of the scheme is to improve local English teaching and learning in Hong Kong with the new insights and techniques brought about through collaboration between NETs and local teachers. Therefore, these local teachers and NETs were concerned that NETs should not work in isolation from the rest of the teachers, because then their influence will be restricted and exchange of ideas on aspects of education would be impossible. To realise a genuine collaboration, one respondent suggests NETs and NNNETs should co-work on the development of all aspects of the panel's work.
Developing materials seen as the NET's sole responsibility
As described in the Technical Report (Section 7.3.2.7) more and better collaboration is desired by respondents in several aspects including the development of teaching materials, one of the most important objectives of the NET scheme. Secondary respondents shared the view that little collaborative work has been done in this respect. According to their comments, local teachers might have the perception that developing materials is part of the NET's role and they tend to leave the job entirely to the NET.

Lack of Collaboration between NETs and Local Teachers
A significant proportion of questionnaire respondents, 36 (18%) secondary and 12 (22%) primary, volunteered written comments on the issue of collaboration, a prerequisite for NETs to be effective in school-based teacher development as we have defined it in our research question. Generally speaking, the comments reflect dissatisfaction with the degree of collaboration between local teachers and NETs. Seven respondents, mostly expatriate teachers, put down very negative comments relating their experiences whereas both secondary and primary respondents (n = 20) had experienced only partial (in certain areas), minimal or superficial collaboration with their colleagues. Factors constituting poor collaboration are mentioned in some of the responses and are summarized in Section 10.4.4 above. The NETs giving very negative comments blame local teachers who, they claim, had little interest in any collaboration.

Lack of communication to provide a foundation for collaboration
Professional interchange and cross-fertilisation between the NETs and the local teachers is one of the ultimate goals of collaboration. According to questionnaire respondents, communication between NETs and local teachers is not enough to provide a foundation for successful collaboration, especially in actual classroom teaching. 23 responses reflect a lack of communication and sharing among NETs and local teachers and indicate the nature of the constraints which include heavy workload, lack of time and cultural differences.

Performance Evaluation
Evidence of the success of the NET in school-based teacher development is provided in written comments volunteered by questionnaire respondents in the section on the performance evaluation/self-evaluation of the NETs. The evidence is somewhat inconclusive and sometimes contradictory. For example, local respondents agreed that NETs performed well in providing advice to local teachers and creative teaching ideas as well support to staff with problems in English teaching. On the other hand, complaints were expressed by other local respondents about the NETs including passivity in initiating activities and sharing teaching ideas.

Limitations in helping raise staff English proficiency
In response to the questionnaire item relating to the NETs role in enhancing the English proficiency of staff, written statements from several respondents indicate a lack of positive perception among all parties as to the benefits of the NET scheme in this respect. Four secondary NETs make further comments assigning the blame to the local teachers in this regard. They feel that local teachers are far too confident in their English proficiency and thus are generally unwilling to consult the NET on matters relating to English usage.
Constraints beyond the control of the NET
The NETs' self-evaluation on their performance is also somewhat mixed. Half of the NET respondents give a very positive evaluation of their own performance in collaborating with the local staff and raising the standard of teaching. The other half are not satisfied with the outcomes of their endeavour seeing the reasons for unsatisfactory performance in the local teaching culture and a system which they considered as constraints beyond their control. (See Section 7.3.2.2 B above).

Entrenched practices
Because of the exam oriented system and the traditional, entrenched practices and expectations of local teachers, parents and students real innovation is not possible. Creative teaching methods are difficult to work out in class because of the heavy reliance on common textbooks. No matter how diligently the NETs teach inside the classroom, the lack of opportunity for students to speak English outside classroom undermines NETs' long-term impact on students. NETs were also dissatisfied with the level of support they received from school administrators in their collaboration with local staff. This might explain why some of the NETs experienced difficulties in adapting to the local teaching environment.

11.2.2 Evidence from the Case Studies

There is limited direct evidence in the Case Study data to suggest that the NETs concerned had successfully assisted in school-based teacher development. Two instances, from three out of seven schools can be found.

DIRECT EVIDENCE

NETs engage in team teaching with local teachers
In two schools, one practical school (SG) and one primary school (PB), the NET engaged in team teaching with colleagues. It should be noted that the examples of team teaching observed by our field workers, however, could not be considered exemplary practices. One is discussed in the Technical Report, (Section 7.3.2.4 B) as non-optimal use of the NET.

NETs provide professional development workshops for local teachers
In one primary school, the NET provided informal staff development sessions for local English teachers on the teaching of creative writing.

INDIRECT EVIDENCE

Teacher development through modelling good practice
While there is limited evidence of the collaboration between NETs and locals which would suggest that they had contributed directly to school based teacher development, there is indirect evidence in the Case Study data of NETs contributing to the development of teaching and learning in the school in ways which would impact on local English teachers.

Distinct roles of NETs and Local Teachers with possibilities for cross-fertilisation
It is clear from the data that both local teachers and NETs recognise that each party has distinct roles to play. Examples of these distinct roles have been listed in addressing Research Question 1 and Objective 1.
NETs introduce different approaches and orientations which may provide a model of good practice to local teachers
Numerous examples of the contributions which NETs have made, arising from their distinctive roles, are also mentioned above in addressing Research Question 1 and Objective 1. Among these are examples of approaches which may be innovative in the Hong Kong context. Successful examples of such approaches may provide fresh stimulus for local teachers and give them some impetus to try out these approaches in their own classes. Such approaches might include, for example, introducing drama and creative writing; running the English Corner; using free writing, newspaper reading and text-based exercises; increasing opportunities to use English for socialisation purposes; emphasising positive affect in communication; placing higher expectations on students; avoiding exam-orientation; focussing on production; avoiding L1 use in class; developing autonomy; encouraging ease of natural communication; and helping students enact different L2 social roles.

NETs appreciate support of other teachers
One NET teacher claimed to have experienced a lack of sense of belonging in the school due to cultural alienation. Another NET experienced interpersonal disharmonies in the workplace. On the other hand, the majority of NETs expressed their appreciation for the support they received from the administration and from other teachers.

COUNTER EVIDENCE
There is evidence in the Case Study data that some reorientation of the implementation of the scheme would be required to enable the second objective to be more completely achieved.

NET and local teacher roles are distinct and separate
There is evidence of conceptualisations from principals and teachers that the NETs play a role which is distinct and separate from that of the local teacher, with the implication that cross-fertilisation would not be deemed useful or necessary. The principal of (PB), for example thought that local English teachers would have difficulty in matching the NETs contributions because no matter how hard they tried, they were constrained by their former English learning experience which tended to be traditional and conservative.

Exam skills vs. "fun and games"
There is indirect evidence of lack of cross-fertilisation between local teachers and NETs in the comments of senior form students. One of the distinct roles of the local teachers which is especially valued by senior form students is an exam orientation in their teaching. Students complained that one NET failed to teach exam skills. Other students were strongly resentful at having a NET in their examination year. This seems to suggest that NETs and locals have different views on the best way to prepare students for public examinations and we saw no evidence of attempts to resolve these differences.

Cantonese for clarification vs. Monolingual English
Another clear example provided by students of a serious dichotomy in approaches adopted by local teachers and NETs lies in the use of Chinese in the English lessons. Low to medium ability students express a preference for a local teacher, who can explain concepts to them in Cantonese and of whom they can ask questions in Cantonese, over a monolingual NET. This would represent a sharp difference in teaching philosophy, and we have no evidence of any attempts to resolve or rationalise the differences.
Local teacher as counsellor, advisor, motivator

In a recorded lesson in which the local teacher is teaching, it is evident that the local teacher plays the additional roles of counsellor, advisor, motivator, appealing to L1 cultural norms to urge the students to pay attention and do the work in class. Since the students in this school (SG) (a practical school) have serious motivation and learning attitude problems and their L2 proficiency is very low, this kind of role needs to be performed in Cantonese and may be effective in motivating and facilitating learning among these low ability students.

"Differential treatment"

Many primary and secondary teachers said that they were burdened with administrative duties, which the NETs did not need to take up, and therefore had no time and energy to explore innovative ideas in teaching. It seems that this is seen as a form of "differential treatment" and is a source of grievance which may be a stumbling block in the way of more effective collaboration.

"Unfair" class allocation

Two panel chairs (SD, SF) from medium to low ability schools in our sample expressed concerns about fairness in class allocation. In order to avoid the discipline problems NETs have when teaching poorly motivated low ability students, measures were taken to assign them the relatively better classes. Even though most local teachers interviewed agreed in principle that weak students would not benefit from NET teaching as well as the better students, the allocation of only good classes to the NET was commented upon as a possible bone of contention if it were done on a long-term basis as most teachers would gain less satisfaction or enjoyment from teaching low ability and poorly behaved students.

School effect on the NET

There is evidence from the Case Study of a reverse NET effect which consisted of NETs being influenced by the prevailing culture of the school. This influence was felt in the form of realisation that the best way to handle unacceptable situations in the classroom may be to adopt practices which may conflict with teachers' beliefs and philosophy of teaching but were nevertheless effective. Examples include the NET in SC who reported how she found students in her schools were used to fear and punishment as a motivator to good behaviour and she could only conform to this culture to avoid having a hard time. The NET in SF also admitted that due to large class size and the poor discipline of some students, she very often had to get through the lessons with activities that only generated highly teacher-controlled language production from the students.

Curriculum development done by NETs in isolation rather than by the Panel in collaboration

Concerns about the lack of curriculum support are expressed by some NETs, particularly those who do not want to depend on prescribed textbooks and worksheets for planning their lessons. These teachers generally experienced this from the school or from the Education Department. NET interview data shows a general complaint about the lack of available teaching materials and they feel that they are left on their own to find/design suitable materials, tasks and activities for their classes.

Piecemeal nature of lesson planning

The lack of provision of long-term curriculum resources and planning shows in the piecemeal nature of the lesson planning of some of the case study NETs; e.g., an apparent lack of
recycling and building up of lesson content reflecting longer term objectives; an apparent lack of continuity between topics in different lessons; a lack of variety of tasks/activities (some students remarked that they soon get tired of their NET's activities as "they are always the same").

Lack of professional sharing and support
Some NETs also complain about the lack of professional sharing and support among colleagues in the school; e.g., local colleagues only focus on doing their own work and there is no exchange of ideas or teaching materials. Some NETs feel that the exam-oriented school curriculum is too constraining.

11.3 Objective 3
To enable native-speaking English teachers to enhance the teaching of English by helping to foster an enabling environment for students to speak English and practise their oral skills.

Evidence of the extent to which the third objective of the scheme has been achieved can be identified in the findings of the questionnaire surveys for school personnel and parents and of the Case Study. Given the difficulty in tracing language gain and ascribing it to particular treatments over such a short period of time as the one or two years of the evaluation, this evidence should be accorded due weight.

Nevertheless, the major source of evidence of the extent to which the objective has been achieved lies in the results of the language assessments and of the attitudinal questionnaire for students.

Findings from these four sources of data are provided below.

11.3.1 Evidence from the Questionnaire Surveys for School Personnel and Parents

There are clear indications in the findings of the school personnel and parents' questionnaire of the extent to which NETs have helped to foster an enabling environment for students to speak English and practise their oral skills.

General agreement as to NET role in language development
There is general agreement as to the role of the NETs in attempting to create this enabling environment through a concentration on oral/aural skill development and on elements emphasising language usage in context rather than language knowledge. However, the disagreement of the secondary NETs to the relevance of these focuses signals a possible need for role clarification. (See Section 9.4.2 above.)

NETs should focus mostly on oral/aural skill development
There is strong agreement from parents, secondary school principals, English panel chairs and other non-English local teachers, as well as from all respondents in the primary sector that duty allocation for NETs should reflect their areas of specific expertise. In other words, the NETs should focus on teaching speaking and listening skills. There is however a statistically significant difference between the views of these parties and secondary school NETs themselves. Moreover, secondary school local English teachers tend to agree with the NETs. We may infer that the local English teachers do not want the NETs to take up only what they
call the "easy" tasks which do not involve a heavy marking load (confirming the case study interview results).

**NETs should teach mostly language arts**
While primary sector respondents agree, secondary NETs disagree rather strongly with this statement. Again, besides signalling a mismatch in perceived roles, this reflects the desire on the part of the NETs to avoid oral-only teaching.

**Impact of the NETs on the school**
Questionnaire respondents were asked to rate the impact of the NET scheme on the school. There was general agreement that NETs have created an authentic English-speaking environment for the students. Agreement was most unanimous in the primary schools; among the secondary respondents, the NETs themselves are more sceptical of their effectiveness in this respect. Causes for this kind of disagreement are ascribed to a mismatch in perceptions—perhaps the NETs have higher expectations and are disappointed at having been either "spread too thinly" or having concentrated their efforts on two or three classes of students. (See Section 9.4.3 above.)

**Perceptions of student language proficiency gain**
One section of the questionnaires asks respondents to indicate their perceptions of language gain among students in specific areas including affective areas and language skills.

**Perceived improvements in language skills**
Similar response patterns are found in the two administrations of the survey questionnaires. In general, both NETs and non-NETs tend to agree or moderately agree that students have become better in speaking, listening and pronunciation, and have more confidence in using English to communicate. Both secondary school NETs and non-NETs tend to be neutral or in disagreement on statements about students' improvement in reading, writing and grammar. And in general, secondary school local English teachers tend to indicate more disagreement on statements of improvement in the areas of reading and writing than primary school local teachers and NETs. The response patterns confirm the perception that the NET impact is more felt in the speaking and listening areas and their impact is perceived as greater in primary than secondary schools. (See Section 9.4.6 above.)

113.2 Evidence from the Case Study

Several relevant findings have been reported above in relation to Objective 1 & 2. These include the following. (Please refer to Section 3.1.2 above and Section 7.3.2 above.)

School Principals* were satisfied with NET performance in this respect NETs introduced teaching innovations in drama & creative writing. They played an important role in running the English Corner and coaching for competitions and introducing English culture through extra-curricular activities. NETs seemed clear and confident about their role. They focus on communicative activities and enhancing classroom atmosphere by providing enjoyable lessons involving lots of games in a less formal, less forbidding approach which pupils love. They employ enjoyment-based activities; have higher expectations of student output and are not exam-oriented. They focus on production and the avoidance of L1 use in class. They provide a more accurate and standard pronunciation emphasising ease of natural communication with a more native sounding model using humour in a dynamic approach using a variety of interesting tasks and activities. They are especially appreciated by higher proficiency students and by
outspoken, outgoing, risk-taking students who are not afraid of making mistakes or being laughed-at, eager to make guesses and attempts to solve communication problems and tolerant of uncertainty. They are effective in apprenticing pupils into the culture of L2 speaking and "acting" by modelling L2 speech.

**Extra curricular activities particularly appreciated**
Their work is particularly appreciated through extra-curricular activities, modelling appropriate language and coaching students in culturally appropriate behaviour. Here they increase both staff and student opportunities to use English for socialisation purposes as well as helping students enact different L2 social roles; modelling, and coaching students in acting, particularly in relations to emotions.

**Ease of natural communication**
The majority of the students interviewed felt that it was more natural to communicate in English with the NET than with the local teachers. Unless the latter made it a rule for them to do so, the students said that they seldom took the initiative to speak to the local teachers in English.

**More native sounding model**
A similar mentality was shared by a few students of higher English proficiency from SC. They preferred the teaching of the NET because they felt that the NET provided a better model of ‘native-sounding’ English.

**Focus on listening providing a standard model for students to listen to**
A few students from a good class in SD expressed the view that the NET should concentrate on teaching listening while the local teachers should handle the other skills (including oral) because in their opinion, the value of the NET lay in providing a standard model for them to listen to, whereas the local teachers seemed to be more skillful in explaining grammar. It should be noted that this was interpreted by the field workers as a sign of the passivity of the students concerned. They wanted to just listen to the NET and practise speaking with the local teacher who could give them assistance by using Cantonese.

**Overall effectiveness in oral language development**
The overall conclusion from the Case Study would be that the NETs had enjoyed relative success in their role in helping to foster an enabling environment for students to speak English and practise their oral skills. School personnel, including principals and the NETs themselves agreed that this aspect of their work had been successful, though the NETs are more aware of their own limitations. Students, especially those in the primary sector are appreciative of the effectiveness of the NET in this aspect of their work. There is strong evidence from lesson observations of the effectiveness of a monolingual classroom environment in forcing students to use more English even for administrative functions which are normally conducted in L1.

**11.3.3 Evidence from the Language Assessments**
Qualitative evidence has been found from the Case Study and the questionnaire surveys to indicate that this objective had been achieved to a large extent in the secondary and primary schools. (See also the Education Department celebration of this success in the booklet entitled “Net-working”. (Education Department, 2000))
In this section, quantitative evidence is presented which allows us to judge the effectiveness of the enabling environment the scheme aimed to provide for “students to speak English and practise their oral skills” in actually generating measurable differences in language improvement.

Two types of evidence are presented: evidence from cross-sectional analyses; and longitudinal evidence.

11.3.3.1 Evidence from Cross-sectional Analyses

The primary objective of the cross-sectional analyses (see Section 6.2.2.1 above) was to gather baseline data in order to provide a basis for longitudinal comparison. However, the administration of the language assessment instruments was conducted at points in time when the students assessed had already begun to undergo the treatment of interest. These assessments were administered to two sub-categories of subjects, termed the first cohort and the second cohort (refer to Section 5.3 above), in order to capture data to help in evaluating the effectiveness of NETs recruited at different times.

Assessments were administered on the first cohort in March 1999 at a point in time when the first cohort NETs had been in place, exerting influence on the students concerned, since the previous September. For the second cohort study, this period of pre-assessment influence was only three months. In such a short period of time the influence of a teacher is not likely to produce a measurable effect on language proficiency, nevertheless what influence there is will be present in the data. For this reason cross-sectional analysis of the baseline data gathered in each administration of the language assessments was conducted with a view to identifying examples of possible NET effects.

Four types of assessment were analysed, HKAT (see Section 6.2.1 above), oral, listening and writing tests (see Section 6.2.2 above).

HKAT scores
The analysis of HKAT scores was constrained by limitations in the data set, but suggested a general two-year NET effect in the scores indicating that lower secondary groups taught by NETs in medium ability schools in the period September 1998 to May 2000 performed better than those taught by other teachers. In addition, the analysis revealed a very small but significant one-year effect on F3 students in medium ability schools. (Please refer to sections 6.2.1.1A (ii) and 6.2.1.1B (ii) above.) As in all the baseline data reported in this section, these effects could be indications of features of the particular groups that NETs were assigned to teach. Indeed evidence is found in the Case Study and questionnaire surveys that NETs were generally assigned the better classes in order to avoid difficulties in classroom management which their lack of Cantonese would pose. On the other hand, some NET influence is likely to be reflected in the HKAT result, though the available evidence does not allow causal relationships to be identified.

Repeated measures analysis
The analysis of oral and listening scores was more complete and identified significant differences in the performance of students taught either by NETs, by locals or by both types of
teachers working together, perhaps in some form of split class teaching or of team teaching. (Tables presenting these findings can be found in Section 6.2 above.)

The findings of the cross-sectional analyses allow hypotheses to be drawn about longitudinal effects. A picture begins to emerge which, with further longitudinal analysis might give indications of the most effective mode of NET deployment in high, medium or low ability classes at different levels. However, the findings are complex and it is somewhat difficult to identify trends.

Distilling the findings reported in detail in Section 6.2 and focussing only on putative NET effects, allows us not to draw conclusions, but to make hypotheses for further investigation. These hypotheses are set out below with a summary of the supporting evidence found.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secondary</strong></td>
<td></td>
</tr>
<tr>
<td>Lower ability F1 students perform better in oral-aural skills when they</td>
<td>1st Cohort 1st Admin&lt;br&gt;Oral and Listening (Section 6.2.2.3C (i) above)&lt;br&gt;</td>
</tr>
<tr>
<td>have the benefit of being taught by both a NET and a local teacher. If</td>
<td>F1 low/medium: BOTH &gt; NET&lt;br&gt;                  BOTH &gt; Local</td>
</tr>
<tr>
<td>they are taught by a NET for all their lessons, however benefits are not</td>
<td>F3 high: NET &gt; BOTH&lt;br&gt;  F4 high: NET &gt; BOTH</td>
</tr>
<tr>
<td>apparent in the short term but take at least two years to emerge.</td>
<td></td>
</tr>
<tr>
<td>Older, better ability students perform better in oral and listening</td>
<td>1st Cohort 2nd Admin&lt;br&gt;Oral and Listening (Section 6.2.2.3C (i) above)</td>
</tr>
<tr>
<td>skills after being taught by either a NET or a local, not both. However,</td>
<td>F2 low: NET to NET &gt; Local to Local</td>
</tr>
<tr>
<td>younger, low to medium ability students improve their writing skills</td>
<td></td>
</tr>
<tr>
<td>under the influence of a NET.</td>
<td></td>
</tr>
<tr>
<td>Writing (Section 6.2.2.4; 6.2.2.5 above)</td>
<td>F1 medium: BOTH &gt; NET&lt;br&gt;  F3 low: NET &gt; Local</td>
</tr>
</tbody>
</table>

The 'greater than' symbol (>) is used to indicate that scores for a particular group were greater than scores obtained by another group. Thus, 'BOTH>NET' should be interpreted to mean that scores obtained by students taught by a combination of local teachers and NETs were higher than those of students taught by NETs alone.
In the lower levels of primary school, pupils benefit more from the NET when he or she teaches only a proportion of their English lessons. When the children become more mature they are better able to benefit, particularly in listening skills, from being taught by the NET for all their English lessons. But the most effective teaching arrangement is still a balance of local teacher and NET.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Evidence</th>
</tr>
</thead>
</table>
| Primary    | 1st Cohort 1st Admin  
Oral (Section 6.2.3.3 C (ii) above)  
P3: BOTH > Local  
Listening (Section 6.2.3.3 C (ii) above)  
P5: NET > BOTH & Local  
1st Cohort 2nd Admin  
Oral & Listening (Section 6.2.3.3 C (ii) above)  
P4/P6 Local to NET > NET to NET  
P4/P6 Local to Local > NET to NET  
Writing (Section 6.2.2.5 A above)  
P6 medium: NET > Local  
2nd Cohort 1st Admin  
Listening (Section 6.2.3.3 C (ii) above)  
P3/P5: NET > Both; NET > Local  
2nd Cohort 2nd Admin  
Oral & Listening (Section 6.2.2.5 A above)  
P4/P6: NET > Both; NET > Local  
Writing  
P5 medium: Both > Local |

11.3.3.2 Evidence from Longitudinal Analyses

Oral, listening and writing scores were analysed for longitudinal effects of different types of teaching. The results provide a modest amount of evidence suggesting that NETs do have a measurable on effect on scores in certain circumstances.

SECONDARY

Repeated measures analysis

In the secondary school data, evidence was found that exposure to a NET was influential in increasing the oral assessment and coordinated oral and listening scores of secondary school students at all levels of school and all ability levels, and that this influence was significantly greater than that of local teachers teaching similar students (refer to Section 6.2.3.1 E (i) above).

Follow up analysis using ANCOVA

ANCOVA supported this evidence of NET effects and provided more detailed findings relating to effects at different school levels. These are reported in Section 6.2.4.3 above.

Over a two-year period, NET classes in low ability schools obtained higher listening scores than students taught by local English teachers. Low ability students performed better in the oral
assessments when they were taught by local English teachers. In terms of spoken ability, high and medium ability students benefited most from the NET exposure and obtained higher oral scores when they were taught by a NET for each of the two years rather than being assigned a local teacher for one year out of the two.

Evidence is found that a NET effect takes time to develop, since over the one-year period of the second cohort study, NET effects were less marked. In fact, only medium ability students at F3 obtained higher scores when they were taught by a NET, and this was in the listening assessment.

**PRIMARY**

Revised measures analysis

In the primary school data, the evidence suggested that pupils who were taught by a sequence of NET to Local over two years scored significantly higher in the listening assessment than pupils taught by a NET for two years and than pupils taught by a local teacher for two years. In interpreting this finding it needs to be borne in mind that the reliability of the primary listening test on the second administration was marginally unacceptable (please refer to Section 6.1.3.1 C above). For this reason the finding needs to be treated with caution.

In the second cohort, evidence was found to suggest that the influence of the NET was significant in producing higher oral assessment scores than those of local teachers or a combination of local teachers and NETs. In other words, pupils taught by a NET scored significantly higher in the oral assessments than pupils taught by other teachers (refer to Section 6.2.3.1 E (ii) above).

Follow up analysis using ANCOVA

The repeated measures findings were not strongly supported by ANCOVA. In fact, in P4 and P6 the higher oral and listening scores were shown to be coming from pupils taught by local teachers for the two-year period. (Please refer to Section 6.2.4.3 above.) In the second cohort, one-year study no significant results were found.

The higher scores obtained by pupils taught by local teachers in the first cohort suggests that the average primary class requires the LI support which local English teachers can provide and are better able to benefit from NETs when they are deployed to provide supplementary oral practice either in class or in extra-curricular activities.

Alternative Method of analysis

Paired sample t-tests

The tracking of language proficiency improvement over a relatively short period of time by means of test scores is notoriously difficult to achieve. This is evident in the comparative analysis of pre- and post-test results conducted in the present study using paired sample t-tests.

These results are reported in Section 6.2.5 above. They show that out of 24 groups only nine showed significant improvement in listening test results between the first and second administrations. For the purposes of the evaluation of the NET scheme however, it is noteworthy that of these nine groups, eight involved NET teachers. These were lower secondary classes (F1-P2), across the full range of schools.
Whilst advising caution in the generalization of results from paired sample t-tests (which are fixed point in time measurements), there is some evidence that there is a NET effect in helping to improve the listening skills of both upper and lower secondary students. (Please refer to Sections 6.2.5 A and 6.2.5 B above).

11.3.4 Evidence from the Attitudinal Questionnaires for Students

Results from the attitudinal questionnaires were analysed for evidence of a NET effect on the attitudes of secondary and primary students taught by NETs compared with those of control groups of students not taught by NETs.

The results provide evidence of students’ developing attitudes towards relevant aspects of the language, its speakers and towards the benefits of being taught by a NET as well as of their developing motivation and study habits. These are reported in detail in Section 8.3.2 above.

Among these findings is some, rather scattered, evidence of the effectiveness of NETs in developing more positive attitudes in young language learners, a factor which research has demonstrated will be important in their long-term language development.

The secondary questionnaire addressed five traits. For these five traits, both cross-sectional, and longitudinal analyses were conducted. No significant findings emerged from the longitudinal analysis. The findings are summarised below.

Evidence from Cross-sectional Analysis

Cross-sectional analyses - first cohort, first administration

Help provided by the NET
Students in low ability schools who were taught by a combination of local teachers and NETs showed a more positive attitude than those taught by either local teachers or NETs.

On the other hand, students in medium ability schools taught only by NETs showed a more positive attitude than those taught only by local teachers.

Personality of the NET
On average students in low and medium ability schools taught only by NETs or by a combination of local teachers and NETs showed a more positive attitude than those taught only by local teachers.

Study habits
On average students in low ability schools taught by a combination of local teachers and NETs showed a more positive attitude than those taught only by local teachers or NETs.

Students in medium ability schools taught only by NETs showed a more positive attitude than those taught by local teachers.

Students in high ability schools taught by either NETs or local teachers showed a more positive attitude than those taught by a combination of both local teachers and NETs.
Motivation
On average students in low ability schools taught only by NETs or by a combination of both local teachers and NETs showed a more positive attitude than those taught only by local teachers. Students in medium ability schools taught only by local teachers or NETs showed a more positive attitude than those taught by a combination of NETs and local teachers.

In these first cohort cross-sectional data, out of a total of sixteen significant comparisons, there were seven indicating a more positive attitude on the part of students taught only by NETs. Moreover, only two of the 16 significant comparisons show a more positive attitude on the part of students taught only by local teachers. (Please refer to Section 8.2.3.1 A (i) above.)

Cross-sectional analyses - first cohort, second administration

SECONDARY

Attitude towards English
On average students in low ability schools who had been taught by a NET for two consecutive school years showed a more positive attitude than those taught by a local teacher for the same two-year period.
For students in high ability schools, those who were taught by a NET for two consecutive school years tended to show more positive attitudes to English.

Help from NET
On average students taught by a NET for two consecutive years or a NET in the first year and a local teacher in the second showed a more positive attitude than those taught by local teachers for two years.

Personality
On average students taught by a NET in the first year and a local teacher in the second showed a more positive attitude than those taught by local teachers for two years.

In these first cohort cross-sectional data gathered at the end of a two-year period, three out of the eight significant comparisons consist of a more positive attitude demonstrated by students taught only by a NET. Only one of the eight consists of a more positive attitude demonstrated by students taught by Local teachers for the same period. (Please refer to Section 8.3.2.1A (ii) above.)

Cross-sectional analyses: second cohort, first administration

Attitude towards English
On average students in low ability schools who had been taught by a local teacher or a combination of local teacher and NET showed a more positive attitude than those taught only by a NET.

In Medium and High ability schools, however, students taught by a NET showed a more positive attitude than those taught by a combination of local teacher and NETs.
Help from the NET
On average students in low ability schools taught by a combination of local and NET showed a more positive attitude than those taught only by a NET.

On the other hand, in Medium and High ability schools, students taught only by a NET showed a more positive attitude than those taught by either local teachers or by a combination of local teachers and NETs.

To conclude, 6 out of the 9 significant comparisons in these second cohort baseline data involve a more positive attitude shown by students taught only by a NET. Only one of these 9 findings consists of a more positive attitude demonstrated by students taught only by local teachers. (Please refer to Section 8.3.2.1A (iii) above.)

Cross-sectional analyses: Second cohort, second administration

Attitude towards English
On average students in low ability schools taught by a combination of local and NET showed a more positive attitude than those taught only by a NET. (Please refer to Section 8.3.2.1A (iv).

Cross-sectional analyses: first cohort, first administration

Attitude towards English
On average, P5 pupils taught by either a NET or a combination of a local and a NET showed a more positive attitude than those taught by a local teacher. (Please refer to Section 8.2.3.2.1B (i) above.)

Cross-sectional analyses: first cohort, second administration

Help from the NET
On average pupils in medium ability schools who are taught NET for two consecutive years have a more positive attitude than those taught by a NET in the first year and a local teacher in the second. (Please refer to Section 8.2.3.2.1 B (ii) above.)

Summary of Questionnaire Findings

The results of the questionnaire analysis present a somewhat confusing array of findings from which no obvious patterns emerge. Longitudinal analysis was not able to uncover any statistically significant trends in the data. This means that we are only able to examine the cross-sectional data and draw hypotheses about possible longitudinal effects. These hypotheses would need further investigation (preferably over a longer period) in order to substantiate them. For the time being any apparent causal relationships only have the status of hypotheses.

Scrutiny of the available data reveals two tendencies which constitute useful hypotheses for further investigation aimed at identifying longitudinal effects. The plausibility of these hypotheses is supported by evidence elsewhere in the evaluation.

1. First, there is a general tendency for students to develop more positive attitudes when they are taught either by a combination of NETs and local teachers or by NET teachers alone.
Local teachers do not seem to be so effective alone in enhancing student attitudes to the language. This can be seen in the fact that of the twenty-eight significant findings listed above, twenty-four are in favour of either NETs or a combination of NETs and locals.

Since attitude plays a vital role in effective language learning, this indication is important. Support for the hypothesis comes from the Case Study where many students remarked on the enjoyable, fun-filled, task-based, more informal, less-forbidding approach adopted by the NETs in their teaching. Further evidence in the Case Study, is backed up by assessment of the impact of the scheme by local teachers, school principals and parents in the questionnaire for school personnel. Here the effectiveness of the NET in serving as a cultural ambassador, introducing aspects of the underlying culture of the language to their students receives a positive rating overall. It is postulated that greater exposure to and understanding of the culture of the language has resulted in these enhanced attitudes.

2. Second, there is a general tendency, reflecting the hypotheses we have made about the oral and listening assessment data, for younger, less mature or lower ability students to benefit more from local teachers. The general pattern of findings is that younger, lower ability students display less positive attitudes than medium to high ability students.

Support for this hypothesis comes from the findings of the Case Study and the School Personnel questionnaires where the difficulties experienced by NETs in handling lower level, lower ability students are noted. In our findings, there is evidence of a tendency for schools to allocate NETs to medium or high ability classes in order to avoid the kinds of discipline problems which are most effectively dealt with by a local teacher able to counsel students in L1.
12 Recommendations

Preamble

It is recommended that in future planning of the NET Scheme, the rationales underlying the differential duty allocations of local and NET teachers should be widely discussed in the school community to achieve a consensus acceptable to both parties. The present findings indicate that consensus is most likely to be found in the recognition of the cultural, language arts and extra-curricular roles of NETs.

It is considered pedagogically undesirable to segment the English curriculum into discrete skills and to require the NET to do one oral lesson every week/cycle with every class (Curriculum Development Council, 1999, p.44). This mode of operation is also professionally undesirable denying the NET the opportunity to develop the kinds of teacher-student relationship which will facilitate meaningful communication and hence language development and resulting in dilution of the impact of the NET as well as a reduction in job satisfaction.

NETs come with a mission to promote English language learning; this would be more effectively achieved if it entailed facilitating cultural synergy by developing a genuine interest in and understanding of the host country's cultural assets, including her language and socio-historical traditions. Even though NETs are not expected to initiate LI interaction with students, they can operate more effectively and more independently if they have a rudimentary working knowledge of the students' first language.

The deployment of a Native-speaking English teacher (NET) in the schools is most effective when the NET has a unique role to play, a role distinct from that played by a local English teacher. To be most effective each role should be clearly defined, mutually understood and complementary to the other in a situation where both local and NET openly collaborate in the contribution they make to the development of student language proficiency, respect and value each other's contribution and in which each contribution is creating a unique positive impact on the teaching and learning of English in the school.

Such a role is realised when:

a) the NET and the students are able to interact with each other and solve their communication problems with para-linguistic contextual resources (e.g., for low proficiency students rich contextual cues are essential to aid comprehension and syllabus content should involve concrete here-and-now objects and be oriented more towards English for the purpose of social interaction than English for academic purposes);

b) the NET is engaged in classroom practices that involve the modelling and coaching of L2 sociocultural roles and identities (e.g., modelling and coaching culturally appropriate ways of both speaking and acting/behaving), rather than serving merely as pronunciation models or working through a textbook-based syllabus;

c) there are chances for developing the personal relationship with students essential for meaningful communication to take place at increasingly higher levels of sophistication and hence linguistic challenge. This entails the NET being able to interact and develop
relationships with students directly, drawing on both linguistic and para-linguistic resources, without constantly relying on a middle-person as translator.

Qualitative evidence suggests that primary schools offer an excellent context for such a unique NET role to be successfully realised, since in the primary school public exam pressure is absent and English content involves more the concrete here-and-now and is more oriented towards social interaction.

In secondary schools, the effects of the NET are unlikely to be significant without a culture shift involving an orientation towards more professional collaboration between Panel members, and unless corresponding changes have been engineered to change the exam-oriented, textbook-based learning cultures of most schools in Hong Kong. In the re-engineered school environment, the learning of English should be viewed as the acquisition of a tool for communication, and not the study of a subject to fulfil exam requirements. The NET could act as a catalyst to facilitate these changes occurring sooner by establishing an authentic and meaningful English language use environment.

Recommendations

To achieve these outcomes we make the following recommendations:

1. The role of the NET in secondary schools should be reconceptualised to that of a resident English ambassador. The role of ambassador has distinct connotations in terms of cultural representation and good-will mission to promote a synergetic relationship between the language and culture the ambassador represents and the language and culture of the local teachers and students.

2. In the reconceptualised scheme NETs should not be teaching 30 periods a cycle like other regular English teachers; neither should they be assigned to teach only oral lessons for all classes in the school; nor should they be expected to conform to the standard practices of English teaching in the schools.

3. Rather, the NETs should be expected to be a school-based resource person in promoting English language learning and teaching in that particular school. The job duties of the NET should include some of the following:
   a. Supporting the English panel in building up resource banks of English learning and teaching materials for the use of students and teachers;
   b. Supporting the English panel in cultivating an English speaking culture inside and outside the classroom through close collaboration with other teachers;
   c. Taking a pro-active role in organising English-related language and cultural activities for students, e.g. exchanges with international students, web-based communications, English-speaking camps, etc.
   d. Taking a pro-active role in organising ELT-related experience sharing, workshops or seminars with local English teachers. These workshops or seminars should be conducted in an atmosphere of two-way interaction, and not in a one-way NET-to-local or local-to-NET information transmission manner;
   e. Supporting local English teachers in everyday classroom teaching, e.g. leading student discussion and establishing a genuine need for students to communicate through English; or acting as guest teacher conducting teaching and learning
activities of their own design depending on their expertise and interest. Where possible, the local teachers should be present in the classroom as an observer or collaborator so that experience could be shared and each other’s performance discussed in a friendly and collegial manner and so that constructive suggestions can be exchanged in a positive and welcoming manner.

4. Consideration should be given to the introduction of the NET scheme on a large scale at the primary level employing NETs who possess qualifications relevant to the teaching of English as a foreign language to young learners and who are well versed in early literacy development and child psychology.

5. NETs should be deployed explicitly to facilitate a more active role in English-related extra-curricular activities, allowing all students equal opportunities to engage in meaningful communicative interaction with them.

6. NET should be deployed to teach all the English lessons for selected classes. For students of a lower level of language proficiency, local teachers should be deployed to provide the necessary support to facilitate this at least in the early stages, for example in the first school term. The local teachers could help monitor group work and provide instant feedback and guidance to handle problems using L1 in a principled manner when necessary and having due regard to facilitation of L2 acquisition.

7. There should be continuity in the employment of NETs since the new roles they are expected to play require familiarity with the background of the school and knowledge of the nature of the students.

8. NETs should be assisted in developing a basic working knowledge of Chinese. Though coming with a mission to promote English language learning, they would do a better job in facilitating cultural synergy by developing a genuine interest in and understanding of the host country’s cultural assets, including her language and socio-historical traditions. Even though they will not be expected to initiate L1 interaction with students, they should develop a working knowledge the students first language (e.g. some abstract but common vocabulary items emerging from the tasks and classroom expressions of the students) so that they could have at their disposal additional linguistic resources to facilitate their communication with the students when situations warrant it.

9. The role of the local English teacher in complementing the work of the NET should be more closely defined. It is important for local teachers to realise that for the NET scheme to be effective and cost efficient, concerted efforts are essential on their part. While the NETs may be better sources of English for personal and social interaction, students should look to the locals for more academic and structure-based English knowledge. However, motivation and interest in learning a second language should be sustained through achievement in using it for genuine communication. Local teachers should not leave this job solely to the NETs. They should also demonstrate to the students both the aesthetic and pragmatic aspects of using English to communicate ideas and express feelings both inside and outside the classrooms. A whole-school approach should be adopted to instil in students the message that learning a language involves more than learning the grammar and vocabulary, but the acquisition of the
manner of speaking and behaving, and that the latter can be better acquired through interactive experience in using the language for meaningful communication.

10. Since improvement of the English standard of 1000 students cannot rely on the impact of one NET alone, more resources (in terms of manpower, time and space) should be put into the provision of regular professional development programmes (conferences, seminars, overseas immersion programmes, etc.) for local English teachers in order that their target language and cultural knowledge, their confidence in using the target language and their mastery of innovative ELT methodology will be increased.

11. Recruitment procedures should be conducted in such a way that the school heads should be directly involved in interviewing their prospective staff. The culture of the school, the level and background of the students should be made clear to the NETs before they agree to take up their job.

12. In order to quantify the influence of the NET in creating an enhanced language learning environment, it is recommended that measures of language proficiency be administered to control and experimental groups of students before and after a more substantial period of exposure to the NET. This would allow students the time needed to benefit from the NET influence in measurable ways.
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Relevant Extracts of Documents for Documentary Analysis

Relevant extracts from key documents are reproduced below with phrases giving clues as to the objectives of the NET scheme underlined.

<table>
<thead>
<tr>
<th>Extract</th>
<th>Source</th>
</tr>
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<tbody>
<tr>
<td>&quot;...we observed such low standards of English in...teachers...most teachers are by no means fluent...policy ought to be amended so that children in their first years of schooling might be exposed to native English teachers...&quot;</td>
<td>Report of the Visiting Panel, 1982, III.1.9, p. 27</td>
</tr>
<tr>
<td>&quot;the quality of language teachers must first be improved if the standard of languages in schools is to be raised...there is definite educational benefit to be gained from teaching English in schools by native English speakers...&quot;</td>
<td>Education Commission Report No. 1, 1984, 3.9 – 3.13, pips 35 – 39</td>
</tr>
<tr>
<td>&quot;...native speaker teachers of English would help to raise the quality of the teaching and learning of English in schools...(their) employment...should be perceived not as a &quot;special&quot; scheme or project apparently highlighting a supposed inadequacy among local teachers, but rather as a natural and healthy development in response to school requests for a certain level of native speakers within the system. This is now very common in schools in the USA and in Europe...&quot;</td>
<td>Report of the Working Group on Language Improvement Measures, 1989, 3.5.3, pips 53-54</td>
</tr>
<tr>
<td>&quot;...before an adequate number of local teachers are trained, schools should be encouraged to employ on local terms more native English teachers who are qualified English language teachers, to teach the subject.&quot;</td>
<td>Education Commission Report No. 6, 1996, p. 4</td>
</tr>
<tr>
<td>&quot;ED should give advice on ...ways to help local teachers and expatriate teachers to work together in the teaching of English...&quot;</td>
<td>Education Commission Report No. 6, 1996, p. 18</td>
</tr>
</tbody>
</table>
Confidence and competence in the use of Chinese and English are essential if we are to maintain our competitive edge in the world. The Education Commission Report No.6 has already laid down a framework to achieve our goal for secondary school graduates to be proficient in writing English and Chinese and able to communicate confidently in Cantonese, English and Putonghua. ... To make an immediate impact on improving the English language standard of our students, we will implement a new Native-speaking English Teachers Scheme, providing more than 700 additional native-speaking English teachers for secondary schools from next year.

Chief Executive's Policy Address, October, 1997

The provision of extra English teacher posts is one of the positive measures to enhance the teaching of English in schools adopting Chinese as the MOI. ... NETs will act as English language resource teachers in the schools. They will assist in school-based teacher development programme and help foster an enabling environment for students to speak English and practise their oral skills. They will share the heavy burden shouldered by the existing English teachers.

Item for Finance Committee 21 November 1997 (FCR(97-98)63) para 4-5 page 2.

The authors believe that the NET scheme can play an important role in enhancing English language proficiency in Hong Kong, and therefore in furthering the city's status as a world-class international centre. The key roles of the NET are: to enhance the English language proficiency of individual students; to demonstrate contemporary approaches to the teaching and learning of English in their work with students; and to share professional ideas with their fellow English teachers.

Net-working: Examples of Good Professional Practice within the NET Scheme, 2000, p 3.
### Profile of Case Study Schools

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>Primary School-Bi-sessional</td>
<td>Hong Kong Island</td>
<td>N/A</td>
<td>Average</td>
<td>Co-educational</td>
<td>Oral only classes: P1 - P6, 24 classes in total</td>
<td>Co-teaching: P1, P2, P5 (1 lesson per week) P3 and P4 (2 lessons per week)</td>
<td>Nil</td>
</tr>
<tr>
<td>PB</td>
<td>Primary School-Full Day</td>
<td>Hong Kong Island</td>
<td>N/A</td>
<td>Above Average</td>
<td>Girls</td>
<td>Full-class: 1 P5 class Oral only class: P1 - P4, 12 classes in total</td>
<td>Full-class: 1 P5 class Oral only class: P1 - P4, 12 classes in total</td>
<td>In the 1980s, expatriate teachers were recruited to teach a variety of subjects.</td>
</tr>
<tr>
<td>SC</td>
<td>Secondary School</td>
<td>Kowloon</td>
<td>CMI</td>
<td>Average</td>
<td>Boys</td>
<td>Full class: 1 F.2 and 1 F.3 class Extra After-school Listening Lab: 4 F.2, 4 F.3, and 1 F.6 Extra Oral Sessions: 2 F.7 Extra Phonetics classes: T.1 classes Extra-Saturday Oral classes: F.1 classes</td>
<td>Full class: 1 F.3 class (2nd yr. for students) Oral-only Classes (1 per cycle) All of F. 1, F. 2, F. 4, F. 6 &amp; 7 Extra Oral Work Extra Oral Work Speech Competitions Choral Speaking Dialogue English Corner F. 1 extra lunch time oral</td>
<td>4 years of having English Language Teaching Assistants (ELTAS)</td>
</tr>
</tbody>
</table>

1. The NET was responsible for teaching all oral lessons.
2. The NET was responsible for all the English lessons in the classes specified: Reading, writing, listening and speaking.
3. These classes were run in the form of compulsory extra-curricular sessions.
4. These classes were run in the form of compulsory extra-curricular sessions.
<table>
<thead>
<tr>
<th>SD</th>
<th>Secondary School</th>
<th>New Territories</th>
<th>CMI</th>
<th>Below Average</th>
<th>Co-educational</th>
<th>Full-classes:</th>
<th>Full class:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Secondary School</td>
<td>New Territories</td>
<td>CMI</td>
<td>Below Average</td>
<td>Co-educational</td>
<td>1 1/2(^2) F.2 class</td>
<td>1 F.3 class</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Oral-only classes:</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>4 F.4 classes</td>
<td>4 F.4 and 4 F.5 classes</td>
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<tr>
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<td>Secondary School</td>
<td>Hong Kong Island</td>
<td>BMI</td>
<td>Above Average</td>
<td>Co-educational</td>
<td>Full classes:</td>
<td>Full classes:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 F.1 and 1 F.6 class</td>
<td>1 F.2 and 1 F.6 class</td>
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<td>4 F.2 classes</td>
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<td>4 F.3 and 4 F.4 classes</td>
<td>4 F.3 and 4 F.4 classes</td>
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<tr>
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<td>Secondary School</td>
<td>New Territories</td>
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<td></td>
<td></td>
<td>1 F.2 class</td>
<td>2 F.2 class</td>
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<td>Oral-only classes:</td>
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<td></td>
<td></td>
<td></td>
<td>5 F.1, 4 F.2, 5 F.3, 5 F.4, 5 F.5, 2 F.6, and 2 F.7</td>
<td>??</td>
</tr>
<tr>
<td>SG</td>
<td>Practical School</td>
<td>New Territories</td>
<td>CMI</td>
<td>Below Average</td>
<td>Co-educational</td>
<td>Co-teaching(^2) (4 out of 6 English lessons in each class):</td>
<td>Co-teaching:</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>2 F.1 and 2 F.2 classes</td>
<td>5 F.1, 5 F.2, 5 F.3</td>
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</tbody>
</table>

\(^5\) One local teacher shared the other half.

\(^6\) In some of the English lessons, both the NET and the local teachers are present in the classroom. The local teachers are mainly responsible for interpretation and clarification in Cantonese for the students, and keeping order.
## Sample Size for the Main Research Instruments

### Primary

<table>
<thead>
<tr>
<th></th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Cohort</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Cohort</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Administration</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Administration</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Administration</th>
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<td>Total</td>
<td>R. rate</td>
<td>Valid</td>
<td>Total</td>
<td>R. rate</td>
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<tr>
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<td>520</td>
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### Secondary

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<td>1st Administration</td>
<td>2nd Administration</td>
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<td>Questionnaire response</td>
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<td>1474</td>
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<td>416</td>
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</table>
Profiles of the NETs in the Case Study Schools

<table>
<thead>
<tr>
<th>School Code</th>
<th>Nationality</th>
<th>Gender</th>
<th>Previous Non-Asian Teaching Experience</th>
<th>Experience in Teaching Asian Students</th>
<th>Academic Qualifications</th>
<th>Reasons for Joining the NET Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>Canadian</td>
<td>M</td>
<td>1 year in Canada, teaching adult immigrants English</td>
<td>2.5 years in Korea</td>
<td>B.A. (Hons) (Fine Arts) TESL</td>
<td>Impressed by the company Good salary package</td>
</tr>
<tr>
<td>PB</td>
<td>British</td>
<td>F</td>
<td>2 years in England, teaching adults as a free-lance job</td>
<td>2 years and 4 months in Hong Kong working as a part-time English teacher, teaching kindergarten, primary students, and offering private tuition</td>
<td>B.A. (Hons) (English) CTEFLA</td>
<td>Waited to stay in Hong Kong for a bit longer Attractive salary package Familiar environment, had worked in the same school for two-year part-time</td>
</tr>
<tr>
<td>SC</td>
<td>Australian</td>
<td>F</td>
<td>11 years in a girls' secondary school in Australia teaching English Literature</td>
<td>Nil, except some Asian students in her girls in Australia, and private tuition with Asian students</td>
<td>B.A. (Hons) (English) Cert. TESOL (1 year full-time program)</td>
<td>Persuaded by her mother, pressed her for trying something new and exciting</td>
</tr>
<tr>
<td>SD</td>
<td>British</td>
<td>F</td>
<td>2 years in France, teaching French and English, and 2 years in England teaching English</td>
<td>Nil</td>
<td>B.A. (Hons) (English and French) TESL</td>
<td>Wanted to leave her job in England at that time, and gain some overseas experience. So, she didn't particularly care if it is Hong Kong or not.</td>
</tr>
<tr>
<td>SE</td>
<td>Canadian</td>
<td>F</td>
<td>2 years in Mexico, 1 year in Canada, all teaching English</td>
<td>2 years in Japan, participated in the JET program</td>
<td>B.A. (Hons) (English) TESL</td>
<td>Wanted to try and work in Hong Kong, as she liked it so much when she spent her holiday here</td>
</tr>
<tr>
<td>SF</td>
<td>British</td>
<td>F</td>
<td>Taught in England before</td>
<td>2 years in Japan, participated in the JET program</td>
<td>B.A. (Hons) (English) Cert. (TEFL) (London U) PGCE (Education)</td>
<td>To look for a change in career development</td>
</tr>
<tr>
<td>SG¹</td>
<td>Canadian</td>
<td>M</td>
<td>Never taught in any English speaking country</td>
<td>1 year in Taiwan, teaching adults; 3 years Japanese secondary school; 2 years in Hong Kong International School; 1 year in Singapore</td>
<td>B.A. (Hons) (English) B. Ed. (Hons)</td>
<td>He liked Hong Kong so much as he had worked here before; Attractive salary package He thought he would be given a chance to teach English Literature in a high banding school</td>
</tr>
<tr>
<td>SG²</td>
<td>Canadian</td>
<td>F</td>
<td>Taught immigrant children in Australia before.</td>
<td>Taught 2 years English in Japan (JET).</td>
<td>B.A. (Hons) (Economics) TESL</td>
<td>She liked to work in Asia.</td>
</tr>
</tbody>
</table>

¹ The first NET quit at the end of the academic year 1998-1999.
² The second NET joined the school in the academic year 1999-2000.
Lesson Excerpt 1:
The local teacher does consecutive translation for the NET in a low proficiency class

NT: Okay, let's practice, say some of these words, let's speak together, okay?
NT: ONIONS
Ss: ONIONS

{The NET continues to engage the class in choral repetitions of the words listed on the blackboard: bread, bananas, rice, pork, hotdogs, cheese, peppers, carrots, pineapple, mushrooms, corn, chicken, celery, grapes, French fries, spaghetti, soup}
NT: SOUP
Ss: SOUP

NT: Okay, now we are going to be waiters and waitresses today.
LT: Hou la, gân yah têh dih yuu jouh sâh ying wo!
(Okay, you'll be waiters/waitresses today!)
好啊，今日你地要做侍應喇過。
Ss: Jâ?
(Pardon?)
下?
Ss: Jowh sâh ying?
(Be a waiter/waitress?)
做侍應?
BS: Jiu jëuk sâi jâng wo!
(Have to wear suit huh!)
要著西裝過。

LT: Jeuk jyu h à gিঙ sàn là!
(Wear this for the moment!)
著住呢件先喇 [the local teacher put a coat on the boy student]
NT: Okay, so ... 
Ss: So .. [imitating the NET]
BS: Jëui sâi fàn ga wo, Đôu Sing.
(That's the latest style, The Saint of Gamblers)
最新款架頭，賭聖.
BS: **Dou Hahp**
(The chivalrous gambler)

赌侠。

BS: **Dou yeh hong juuh yuuh nee hian**
(You have your share to collect the night soil!)

倒夜香就有你份。

NT: I'm first being a customer.

LT: **Gan ne keuh wuuh jouh gu haak la wo, ha laam la wo**
(So, he'll be the customer, here we go.)

呪呢佢會做顧客喇嘅, 下黎喇嘀。

BS: **Ha?**
(Pardon?)

下?

NT: And we'll have six teams, ABCDEF

BS: **Jouh mat gam sai leih**
(What makes it so grand!)

[做乜咁犀利!]

BS: **Wa, Chahn Hoh Nham si!**
(Wow, Chan Ho Nam!)

嘅, 陳浩南呀!

NT: Okay, so, I'll [tell you] what you're going to do. I'll call one person to the front, then, I'll make an order.

LT: **Hauh lak, gan yeung ne, neih deuh wuuh dam yeung jouh ne, neih jouh wuuh agai tinh go koong ne milh yot, dauh yot go yeho leih, neih jouh waah bei keuh tinh yiu ngai mat yeuh sihk lak.**
(So, how are we going to do it? I'll ask the first person of each row to come out, I'll tell them what I'm going to have.)

好勒，咁樣呢，我地會點樣做呢，我就會喺頭果行呢每一第一個人黎，我就話佢幫我看喺乜野食物勒。

NT: And you must stay with this person, and tick off the words I call out.

LT: **Gan yeung ne, neih, juh yuick dai, yuag ju koong ak go go bai ne, tick dai se gau ging neih agai jy mat yeuh sihk meht lak.**

<So, you, then, use that red pen to tick those items that I wanna have.>

咁樣呢，你，之後呢，就要 tick 低，用支紅色果個筆呢, tick 低呢究竟我益坐乜野食物勒。

BS: **Ji hauh ne?**

<What comes next?>

之後呢?
BS: Pizza?

NT: Okay, this is a pizza restaurant.

LT: _SAMPLES千1.0 000 000 000_000 000 000 000
<So, we are now in a pizza restaurant.>

NT: Okay, this is a pizza restaurant.

BS: Pizza ge chian seng si!

<That's a pizza restaurant!>

Pizza 嘎餐厅呀!

BS: Pizza Hut la!

<Pizza Hut>

Pizza Hut 拉!

BS: Pizza jau dim!

<Pizza Hotel>

Pizza 嘎酒店!

BS: Pizza a!

<Pizza>

Pizza 喜

R: Em, okay now, so, I will say I'd like, I'd like a pizza with er onions.

BS: Meih gaaou wo!

<Not taught yet>

未教過!

BS: Onions!

NT: Cheese!

Be: Cheese!

NT: And peppers!

BS: Peppers!

NT: And you have to tick off, right, so—

BS: Mh sik a!

<Don't know!>

Bu議呀!

BS: Ji si a!

<Cheese!>

芝士呀!

NT: Onions, cheese, peppers, right [R ticked onions, cheese and peppers respectively on the board] then you must listen.

LT: Géui go lauh nu, ngóh hau sêng Pizza kuih miên yâuh Ji si a, yâuh ching fiu a, yâuh yêuhng chung a, gán
<For example, I want my pizza to have lots of cheese, green peppers, onions, then, you've got to listen to what I wanna have.>

舉個例呢。我好想 Pizza 裏面有芝士呀，有青椒呀，有洋蔥呀，咁樣呢，咁要聽清楚我想要咩啲。

BS: Miss!

NT: If you get it right, the team get 3 points.

LT: Yâh gwê néih gîng dâk ngâm ge wê, néih go team jîngh dâk sâm sâm làk.

<If you can get it right, your team can have 3 points.>

如果你講得啲嘅話，你個 team 就得三分啲。
Lesson Excerpt 2:

The NET does textbook-based language pattern drills

NT: Okay I think you’ve had enough time. (.) Some people have finished. (.,6) Okay let’s check together take this away and we’ll check. (T puts another OHT on)
Ss: Uhhhhhh (exclaiming with a disappointed tone)
NT: Oh, that looks much better ( ). So the candles will be lit. L-I-T. (.) Just look at the sentence, correct your work, if you make any mistake and repeat after me. Practice saying, the sentences as well. Everybody the candles will be lit.
Ss: The:: candle wi::ll be: lit.
NT: Done the second one. The clothes will be folded.
Ss: The:: clothes wi::ll be: folded.
NT: Okay, the rubbish, what’s the next word. Tracy, (.) where’s Tracy the rubbish^ Tracy: (??)
NT: Excellent, the rubbish will be picked up. (.) Everyone, the rubbish will be picked up.
Ss: The:: rubbish wi::ll be: pick up.
NT: The books, Candy, the books.
((4))
NT: Gladys. (…) No? (.) Cora (.) where’s Cora.
C: Tidy up. (Ss laugh) (with increased volume) Tidy up.
NT: Okay, well done. The books will be tidied up. Everybody, the book will be tidied up.
Ss: The:: bo::oks wi::ll be: tidy up.
NT: How about the bed? Terry, the bed^
Lesson Excerpt 3:

A local teacher motivate students to use the target language meaningfully

LT: right boys and girls, shall we check the answers now? (. . .) now the answer is very personal, the other’s answer is not necessarily the answer for you. anyway let’s hear some of your daily habits and routines. Where were we up to last time? (. . .) is it Chris? Chris, [would you like to start?]

Ch: [ài ya, sèi la] <Oh, my god!> I (am) never^

LT: I am never^

C: (? ?)

LT: late, that’s right, you are never late, good. Cherry

Ch: I sometimes go shopping

LT: I sometimes go shopping^, very good^, Sam, your turn, (S: Sam, nèih a,<you>) give me a sentence about yourself.

Sa: I am always sleeping. (some Ss laugh)

S?: I (chuckling) usually play game

LT: usually^.

S?: play the TV games

LT: I usually play the TV games, okay, Cougar^.

Co: I take a (taxi) sometimes.

LT: sometimes I^.

Co: (? ?)

LT: sometimes I take the ( . . ) taxi aa?

Ss: tax, taxi

LT: how do you say out that word?

Ss: taxi

LT: once again^.

Ss: taxi

LT: that’s right, we talk about it when we were doing the listening a few days ago, sometimes we take a taxi to school.

B4: I always play with my friends.

LT: you always play with your friends.

B5: I always go to the toilet (Ss laugh)

LT: you always go to the toilet^.

B5: in the evening

→LT: in the evening (Ss laugh loudly) that’s good, good sentence. (. . .) it’s your habit, that’s a
very good sentence. Wing
Wi: I am never a girl.
LT: I am never a girl. (...) (chuckling) okay (Ss begin to laugh) Lilian.
G1: (near the recorder) I am never a boy.
Li: (??)
LT: I usually go to bed at eleven o'clock. Okay, let's stop for a moment. Okay, most of you use usually, never and always, okay. can some of you use rarely or occasionally, okay, can you do it Alex?
((.2))
LT: Dàk mh dàk a? <are you okay?>
    得唔得呀?
Al: (??)
LT: I occasionally
Al: play football
LT: occasionally play football (...) okay, Sandy
Sa: (??)
LT: I rarely
LT: sorry
Sa: rarely have a barbecue
LT: I rarely have a barbecue, fēi sè wāngjù hòu a <it's very good>, mè giu <what's meant by>
    非常之好呀！
    叫
    barbecue?
Ss: Siu hào <barbecue>
    燒烤
Excerpt 4:

The NET talks about the holiday assignment.

NT: (reminds Ss what to do during the holiday) don’t forget to do your project, also shhh read your story, Babe the sheep pig, and write a report, a summary of the story, what happens in the story, about half a page, okay, about half a page

Ss: [half a page?
[hé <what?>
下?
NT: one page maximum, okay
B: géi dê yîhp a jk hâih <how many pages, so?>
幾多業呀即係？
NT: what else, I will announce the winners when we come back because I said that I will give prizes this time for the most scary story and the best stories, so I haven’t got time to announce it about, when we come back, I will do that, okay?
B: [how page have we
NT: sorry?
B: how page
NT: how^
B: page we (??)
NT: how^
B: how many page
NT: how many pages^ for what
B: (??)
NT: project?
B: project, yes
NT: O::h, at least twenty
Ss: HAAAHBB?
NT: no, I think about (..) six, about five or six, between five and ten, I think will be very good, okay?
More if you want to, okay let’s say goodbye, stand up
Ss: Móuh dâk wán ò <no play>
無得玩呀！
NT: happy Easter, enjoy your chocolate eggs, don’t get too fat
Ss: (laugh)
Excerpt 5:

A female student initiates a question about a grammar exercise in English

Gs: (asking the teacher when she walks near her) the phone will be or why did the:
following er had the verb ( )
NT: sorry why^ why do we add E-D to phone. Because we want to make it ( ) past participle.
Gs: ( )
NT: yes, this is future ( . ) (T goes on talking to the girl, mentioning future and 'will be', most inaudible on the tape.)
Lesson Excerpt 6:
A NET engages a primary 3 class in a dramatic activity

NT: Okay, ready go!
B1 (pretending to be an old person): Hello, my name is Momomo
B2 (pretending to be a sad person): Hi, my name is Momoto
B1: Nice to meet you too
B2: Nice to meet you too
NT: Very good, boys! Are you okay? (NT asks B2)
B2: (B2 nods his head)
NT: Number one, yeah, (NT points at a girl)
G: An old person (very soft voice)
NT: An old person, yes, an old person
B2: Yeah
NT: and
G: A sad person
NT: Yes a sad person, very good. Remember, look—
G: Nice to
NT: Nice to meet you
Ss: Nice to meet you
NT: Nice to meet you too

Transcription Notations:
| NT  | NET | () | field worker's comments |
| LT  | local English teacher | CAPITALS | stressed words |
| G   | girl student | ::: | lengthened syllables (more colons indicate greater length) |
| B   | boy student | ^ | rising intonation |
| Ss  | students | , | falling intonation |
| < > | free English translation of the Cantonese | (??) | inaudible recording |
Appendix VI

Summary of an ECA Activity Conducted by a NET in a Case Study School

Teaching aids: Blackboard, role/situation-cards

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Time</th>
<th>NET's Behaviour</th>
<th>Students' Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep order</td>
<td>1 min</td>
<td>T asks Ss to stand at the back of the chair. When Ss are ready, T greets Ss.</td>
<td>Ss do it accordingly.</td>
</tr>
<tr>
<td>Recapitulation</td>
<td>2 mins</td>
<td>T asks Ss what they did last week or direct quote “...you?”</td>
<td>Ss replies they were doing role play last week.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T says she is going to give each group a card with a situation written on it.</td>
<td>Ss are all looking at the T with great interest.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>So every group has to act out the situation in front of the class.</td>
<td></td>
</tr>
<tr>
<td>Pre-activity</td>
<td>5 mins</td>
<td>T asks how Ss should react when they have bad food.</td>
<td>Ss reply in smiling faces which to the teacher obviously does not fit with the emotional state required by the situation.</td>
</tr>
<tr>
<td>preparation</td>
<td></td>
<td>Then she appoints a student to answer.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Then T reminds the Ss not to smile when they are acting.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>T asks Ss to get into groups and gives Ss 10 mins to prepare for the acting.</td>
<td>Ss get themselves into groups, and prepare for their acting.</td>
</tr>
<tr>
<td>10 minute pre-activity</td>
<td>10 mins</td>
<td>T walks around to help each group.</td>
<td>Ss use English to talk to each other.</td>
</tr>
<tr>
<td>preparation time</td>
<td></td>
<td>Interesting Observation:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>T always finds the Ss not too emotionally charged. So, she always reminds the Ss not to smile but to exaggerate their facial expression. Attention is always on the way they act, but not on their language.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ss are playing happily during the class. Some of them even bring along some props to assist with their acting, e.g. costumes.</td>
<td></td>
</tr>
<tr>
<td>Acting in front of the</td>
<td>T asks Ss to volunteer to act in front of Ss.</td>
<td>One group raises their hands.</td>
<td></td>
</tr>
<tr>
<td>class</td>
<td></td>
<td>T reminds them about the rules. One rule is that there should be no talking.</td>
<td>One student says they shouldn't be talking loudly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Then T asks all 3 groups to come out and act together.</td>
<td>Ss seem to enjoy the activity very much.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Since the bell has rung, T asks the last group to do the acting next week.</td>
<td>Ss are prepared to leave.</td>
</tr>
</tbody>
</table>
School Personnel Questionnaire: Summary of Written Responses to Open-ended Items

Seven open-ended (unstructured, free response) questions were included in the questionnaires for school personnel to elicit the comments and suggestions of respondents on the following aspects of the NET Scheme:

1. Desirable qualities and skills of Native-speaking English Teachers
2. Allocation of duties for NETs
3. Impact of NETs on the school
4. Collaboration between NETs and local teachers
5. Issues on teaching and learning English
6. Performance evaluation of NETs
7. General comments and suggestions on the NET scheme
8. Reasons for NETs' decisions on further employment

An open-ended question was included in these sections, because it was felt that the issues were complex and likely to generate a variety of responses. The open-ended items, facilitating self-expression and greater richness of detail, were considered the most appropriate means of eliciting individual comments and suggestions on these issues.

The respondents to each open-ended item in terms of their position in the school in the following table:

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Principal</th>
<th>Panel Chair</th>
<th>NET</th>
<th>Local</th>
<th>Non-English</th>
<th>Total No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>11</td>
<td>17</td>
<td>21</td>
<td>9</td>
<td>8</td>
<td>66</td>
</tr>
<tr>
<td>R2</td>
<td>6</td>
<td>8</td>
<td>19</td>
<td>7</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>R3</td>
<td>5</td>
<td>11</td>
<td>21</td>
<td>6</td>
<td>2</td>
<td>45</td>
</tr>
<tr>
<td>R4</td>
<td>5</td>
<td>8</td>
<td>20</td>
<td>1</td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td>R5</td>
<td>1</td>
<td>22</td>
<td>-</td>
<td>4</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>R6</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>3</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>General</td>
<td>2</td>
<td>10</td>
<td>15</td>
<td>1</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>R7</td>
<td>-</td>
<td>-</td>
<td>27</td>
<td>-</td>
<td>-</td>
<td>27</td>
</tr>
</tbody>
</table>
In this section, findings from these free response items are summarized and implications discussed.

1. Desirable qualities and skills of the NETs

Qualities and skills of the NETs valued by school personnel fall mainly into five categories: adaptability, professional qualifications, creativity, personality and working attitude and interpersonal skills.

Adaptability

Consensus is found among 14 respondents (5%) from both the primary and secondary sectors that NETs should be able to adapt to the unique educational environment of Hong Kong. This is reflected in the use of terms such as "adaptable", "flexible" and "accept..." which appear in their responses. NETs are expected to have been well prepared and to be flexible enough to accept a new, foreign, even unfavourable teaching environment. According to the comments of the respondents, those specific areas that NETs have to adapt to are:

1. Cultural differences in a predominant Chinese society
2. The Hong Kong educational system
3. A very high teacher-student ratio, i.e. a ratio of 1 to 40 or more
4. An exceptionally heavy workload and long working hours
5. Variance in student ability and students of very low proficiency

One interesting finding is that two NETs believed that they should have been prepared for a degree of social isolation and professional loneliness and to have to work autonomously because of the difficulty in collaborating with local staff. Another NET, on the other hand, finds there are more regulations in local schools and less autonomy that was the case in his/her previous workplace.
Professional Qualifications

Although neither primary nor secondary respondents agree that NETs should have experience of teaching Asian students (see section ??), some of the respondents expect NETs to be well versed in ESL/EFL teaching methodology and to have experience in teaching children or secondary students in another culture. One respondent expects NETs to have a strong teaching background in their own state’s education system. The rationale may be that this will allow for locals and NETs to share strong points of the other’s education system.

Knowledge of linguistics such as language acquisition, English grammar teaching and phonology are considered essential qualifications for NETs and sound knowledge in IT is also preferred, according to an individual respondent. They are also expected to possess classroom management technique and to be able to manage very low-achievers and students with behavioural problems. Four respondents would like their NET colleagues to have the ability to organise Extra Curricular Activities (ECA) and English learning activities as well.

Creativity

Creativity or innovativeness is another desired quality suggested in the responses relevant to the role of the NETs as a resource person who could bring new insights to the teaching and learning of English. Nine primary and secondary respondents thought the NETs should be creative in suggesting new methods and materials for the curriculum and initiating situations and activities to arouse student’s interest in learning.

Personalities and working attitudes

NETs with certain personalities or attitudes are considered more favourable than those without these traits. Some of the personalities or attitudes listed are universal desired qualities for the teaching profession such as “patient”, “pleasant”, “controlled”, “understanding”, “responsible” and “student oriented”. Whereas others such as “open-minded”, “active”, “outgoing”, “with sense of humour”, “humble in asking for advice and trying to learn”, “cooperative” are more specific to NETs who have to be “open-minded” enough to respect a different culture and active in motivating local teachers and inactive students. Sense of humour, modesty and cooperativeness are highly valued probably because they accelerate the integration of NETs into the local community. (These characteristics may also be considered important to the role of an effective a resource person.)

Interpersonal Skills

Many primary and secondary school personnel indicated good interpersonal skills to be important to the NETs because the effectiveness of the scheme entails acculturation of NETs into the local setting. 11 respondents hoped that NETs could get along well with their local colleagues and even take an active role in the relationship to motivate the relatively reserved local staff. This would facilitate an
exchange of professional expertise between local and expatriate teachers.

2. Allocation of duties in school

The questionnaire results reveal that the stances of different personnel are quite divided on the issue of duty allocation. Local colleagues tend to share similar views as to the appropriate allocation of duties to the NET, whereas the NETs themselves represent a different standpoint in this respect.

Extra-curricular activities

20 local respondents including the principals tend to agree that NETs should be responsible for more English-related extra-curricular activities. Some suggestions they provide are English Club, English Corner, linguistic and cultural exchange activities with expatriate students and inter-school activities in general. This reflects their wish to expose students to NET influence outside the classroom in a more casual and natural environment and coincides with findings from the questionnaire as a whole.

Regular classes and regular duties

6 local secondary respondents, either panel chairs or local teachers, suggested that NETs should have some or at least one regular class rather than teaching only oral and listening skills. Meanwhile, they should undertake the same disciplinary duties and invigilation as the rest of the English panel. One of the rationales given by local teachers for this view was to allow more contact and communication between NETs and students. However, local English teachers may also find it unfair if the NETs are exempted from such duties and they expect a shift of workload to NETs.

Making references to findings from close-ended statements, NETs seem to welcome the suggestion of teaching regular classes provided that the workload is fair to them. They are dissatisfied with the oral-only deployment mode, as they perceive it as an undermining of their professional expertise.

The NETs emphasise that no matter what duties are allocated to them, the workload has to be fair and practicable since each NET has limited time and energy, therefore priorities have to be set in deciding their duties.

Almost 50% of the NET respondents raised the problem of standardization of duties allocated to NET across schools or over-simplification of the issue by taking any single deployment mode as best. They felt that creativity and flexibility were the main principles in assigning duties to NETs and the specific needs of the school, the interests and the areas of expertise of the NETs should be taken into consideration. The allocation pattern should be tailored to the needs of each school. It was also recommended that information sharing should take place among schools as to how the NETs should be used.

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One of the main objectives of the scheme is to improve local English teaching and learning in Hong Kong with the new insights and techniques brought about through collaboration between NETs and local teachers. Therefore, a few local teachers and NETs expressed concern that NETs should not be given restrictive functional roles isolated from the rest of the teachers, since this would mean that their influence would be confined to the narrow areas they are exposed to and exchange of opinions on wider issues in education would be impossible. To realise a genuine collaboration, one respondent suggested that NETs and NNETs should co-work on the development of all aspects of the panel.

3. Impact of NET scheme on School

Reinforcing with the findings of the questionnaire as a whole, primary school respondents tend to make more positive comments on the impact of the NET scheme than secondary school respondents. Almost all except one of the primary respondents have a positive view of the impact of the NET scheme, while only 25 (about 56%) secondary respondents express either explicitly or implicitly that the NET scheme has had some positive influence on school. For the rest of the secondary respondents, 6 (about 13%) have a negative view of the impact of NETs, 12 (about 21%) describe the failure of the scheme in achieving its expected effects. 6 (13%) have no idea how far the scheme has brought about the desired impact on school.

Positive Impacts of NETs on school

There are several aspects in which a host of respondents agree their schools have benefited from the NET scheme. 19% of the respondents agree that the arrival of the NET provides an authentic English-speaking environment for students and teachers to speak “genuine” English while about 15.5% find the students more active and confidence in using English to communicate or more enthusiastic in learning English. However, a few of their remarks show that the impact is far too limited and confined to a small privileged group being taught by NET in all English lessons.

Another area of positive impact is the provision of a contact point between local and foreign cultures. Five respondents agree that students and teachers can understand western culture better as a result of the contact with the NETs. This depends on how widely the NET comes into contact with the students and teachers outside classroom and in each school.

Other single instances of positive impact mentioned in individual responses are raising parents’ interests in their children’s learning of English, sharing of NET expertise and improving the English proficiency of local staff.

No Impact or Negative Impact
Six respondents gave very negative comments on the impact of the NET on their schools. (They are Principal S20, Panel S4, S20, S27, SB12 and Local S17. Four of the respondents had experienced an increase in workload in the form of special "administrative" arrangements such as providing translation in staff meetings or familiarising the NETs with the schools. Other negative feedback is directed to the individual deficits of the NETs serving in individual schools. Nevertheless, it should be borne in mind that when a new measure is introduced for the first time, problems like extra administrative arrangements and readjustments are inevitable, so the perceived extra workload entailed by the coming of NETs might be a transient phenomenon.

The findings, however unrepresentative they may be, may provide guidelines for employment of NETs in the future. More elaborate recruitment guidelines may have to be worked out so that no unsuitable NETs are recruited. More emphasis on individual personality may help to resolve the problem.

**Reasons for limited impact of NETs on school**

It is found that the expected impact of the NETs on school has not been fully actualised so far and respondents are generally not satisfied with the present situation, even the NETs themselves are sceptical as to the real impact they have on the schools. Some of the unfavourable factors suggested by respondents include a lack of position perception among all parties, especially secondary respondents, as to the benefits of the NET scheme in raising local teachers' English Proficiency. Four of the secondary NETs commented further on this statement and they tended to put the blame on the local teachers in this regard. They indicated that local teachers are far too confident in their English proficiency and thus are generally not receptive and unwilling to consult the NET on matters relating to English. This might also be due to lack of interaction between NET and local teachers (see the Case Study findings).

Limited impact is also believed to be the direct outcome of limited resources and misallocation of duties. Unrealistic expectations have been placed on one NET in expecting one person so to be able to effect marked improvements or changes to the curriculum, students' learning motivation and the whole school community. In fact, as one local teacher pointed out, people should not have too high an expectation since the provision of one NET to serve 1000 students was never going to make much of a difference. In order to have the NETs used to their full potential, one NET suggested that they should not be requested to teach as many classes as the local teachers so that more time could be spared for duties tailored to their expertise.

**Summary of this section**

Similar to findings from the Case Study, the prevalent view of the majority is that the NET impact on school is limited and not prominent. One of the reasons might be that the time period covered by the
evaluation is not substantial enough. However, as stated before, we cannot expect too much from one 
NET serving one school.

In fact, the view of school personnel from different schools is quite diversiformed with a few of them on 
the extremes of the pole. This reveals that the impact of the scheme on each school is a highly 
individual matter, subject to the personality of the NET, the readiness of the school for adjustment to 
the addition of the NET, the specific culture of each school and also the ability of the students exposed 
to the NET effect.

4. Collaboration between NETs and Local Teachers

There are 36 secondary respondents and 12 primary respondents to this question. Generally 
speaking, most of the respondents' comments reflect their dissatisfaction with the degree of 
collaboration between local teachers and NETs. Seven respondents, mostly expatriate teachers, give 
very negative comments on the conditions they are experiencing, whereas 20 secondary and primary 
respondents, a mix of locals and NETs, experience only partial (i.e. restricted to certain areas), 
minimal or superficial collaboration with colleagues from the other culture. Factors constituting poor 
collaboration are mentioned in some of the responses and summarised below.

Extreme Cases - No or Poor Collaboration

The NETs giving negative comments tend to blame local teachers for poor relationships. They felt that 
the local teachers in their schools had no or little interest in collaboration. One panel chair claimed 
that they had never tried any of the practices listed in the questionnaire (peer observation, sharing 
experiences and so on) designed to strengthen collaboration and communication between NET and 
local teachers. This shows that in particular schools, little has been done to reinforce collaboration and 
the panel chair has failed to function as a leader encouraging collaboration among the NET and the 
local teachers.

The most common situation — Partial or Superficial Collaboration

As stated above, about 50% of respondents experience limited collaboration and were generally not 
satisfied with the existing working relationships between NET and local teachers. They agree that 
there is room for improvement.

According to their comments, a deeper level of teaching sharing and communication cannot be 
achieved in their schools. Opportunities for teamwork and sharing of teaching ideas seldom occur 
outside panel meetings. Two NETs pointed out that although their schools had implemented a 
co-teaching/shared-class policy with the objective of strengthening collaboration, the effect seemed to 
be minimal and did not receive much acclaim from the NET teachers. Respondents in several aspects 
listed below desire more and better collaboration:
1. Developing Teaching Materials

This is one of the most important objectives of the NET scheme. It is expected that NETs will function as resource persons in the designing of teaching materials and in-class activities. However, 5 secondary respondents shared the view that little collaborative work had been done in this respect. According to their comments, local teachers might have the perception that developing materials is part of the NET's role and they tend to leave the job entirely to the NET. One panel chair claimed that NETs and local teachers might have different understandings of student's learning attitude which in turn became a source of disagreement when they worked together on the development of teaching materials.

2. Sharing of Teaching Experience

Professional interchange and cross-fertilisation between the NETs and the local teachers is one of the ultimate goals of collaboration. Written responses, suggest that communication between NETs and local teachers is insufficient to provide a foundation for successful collaboration, especially in actual classroom teaching. 23 responses reflect a lack of communication and sharing among NETs and local teachers. Some of the numerous barriers hindering deeper communication between NETs and local teachers as mentioned by respondents are discussed in the following section.

Constraints Hindering Collaboration

Six respondents indicated that the heavy workload and pressure English teachers experience were the main obstacles to collaboration. Generally speaking, teachers lack the time for regular sharing; developing close personal relationships is quite impossible under pressure of time, consequently, effective collaboration is difficult to achieve. Cultural differences, if not dealt with properly, might also be a source of discord among NETs and local teachers.

Questionnaire findings suggest that local respondents tend not to welcome the idea of peer-observation. Three NETs seem to be well aware of this local culture. According to their explanation, local teachers might feel threatened by having a NET observe their lessons and they are in general not receptive if the NET appears to take on the role of a consultant or foreign expert rather than a peer worker.

5. Issues on Teaching and Learning of English

For this section, there were 29 secondary respondents and only three primary respondents.

Further Responses to close-ended statements about student's learning progress
About 50% of respondents, most of whom were NETs, expressed their perceptions regarding improvement in English learning after the introduction of the NET scheme.

According to their comments, NETs have only had frequent contact with a limited number of students, while most students only communicated with them in isolated incidents. Thus, it is unrealistic to expect any major improvement in most of the students. This view is shared by the local respondents who do not see or expect great changes from 1 NET serving more than 1000 students. The NET is spread too thinly.

Nevertheless, most of the NET respondents still place a high value on their contribution or potential contribution to the teaching and learning of English in their schools. This is supported by local primary respondents from two schools. As far as the students taught by NETs are concerned, they generally agreed that improvement has been made in one way or another. Instances given by the respondents are as follows.

1. Six secondary NETs and three primary local respondents agreed that students taught by them have shown greater confidence in using English to communicate;

2. Three secondary NETs found their students more willing to speak in English or use the language more often after being taught by them;

3. Individual NETs expressed the view that students in their regular English class(es) could benefit more than their oral-only students. In addition to confidence building, better understanding of English, better spoken English and pronunciation, students in regular classes benefit from one or more of the aspects listed below:
   a. Enhanced interest in learning generally
   b. An increase in their passive and active vocabulary
   c. Better listening skills;
   d. Better written English;
   e. Better command of grammar.

4. One NET who taught all the lessons for the class believed that he/she had provided the opportunity for students to enjoy real-time English communication on a daily basis and students showed a better general competency in English as a result.

Different views on the teaching of English
Some of the respondents expressed their views on the teaching and learning culture in Hong Kong. One of them found a dilemma between the wish to use games/activities and the reality of disciplinary
problems. According to the NET, local teachers tend to be sensitive to the disciplinary issue which implies that even though they agreed that games and activities are desirable means of motivating students' interest in learning, they might prefer to avoid a noisy and undisciplined class at the expense of a more interesting lesson.

Two of the NETs commented on the exam-oriented school culture in Hong Kong. They believed that exam-oriented teaching makes the less capable students feel frustrated and stressful and should be removed from the NET scheme for any new curriculum to be effective. Two of the NETs point to the inertia of the schools as a real obstacle to improving the present system of English teaching and learning and the consequent difficulty for the NET scheme to achieve anything meaningful under such circumstances.

Summary of this section
Generally, the NETs' view reflects that although they could not have an impact on most of the students in their schools, NETs are somehow confident in their value in providing a real context for English usage for students. However, the improvement is only obvious among those students who are exposed to intensive NET teaching but not for the oral-only classes. For oral-only classes, students benefit from an increase in confidence whereas proficiency gain is not attainable, as a result of the infrequent contact.

The free responses serve to explain why the respondents tend to disagree with statements 68-77 in the questionnaire which relate to issues in teaching and learning. In fact, their disagreement should neither be taken as evidence refuting the hypothesised language gain behind the NET scheme nor as disapproval of the contribution of the NETs to the teaching and learning of English. Instead, it only shows that the NET scheme is being operated under some unfavourable conditions which undermine its effectiveness.

6. Performance Evaluation of the NETs

There are altogether 26 secondary respondents and 10 primary respondents making further comments on the performance evaluation of the NETs. Respondents from different schools have very contrasting perceptions of the performance of the NETs in their schools. In this section, the evaluation of the local teacher and the NET self-evaluation will be presented separately to facilitate comparison between the different assessments of NET performance between the two groups.

Local School Personnel Evaluation of NETs' performance
Among 12 secondary respondents, 7 respondents show appreciation for the performance of the NET in at least one aspect. 5 respondents, on the other hand, complained or expressed dissatisfaction over
the performance of the NETs. For primary respondents, 4 out of 8 local respondents show appreciation while two hold negative views on the performance of the NETs.

Areas specified by local respondents as those in which NETs performed well include contribution in designing IT teaching materials, organisation of English learning activities, provision of valuable advice and creative teaching ideas to local teachers, enthusiasm in teaching and provision of support to staff with problems in English teaching.

On the other hand, complaints about the NETs relate to passivity in initiating activities and sharing teaching ideas, lack of interest in school policies and activities, forgetfulness, failure to handle disciplinary problems and being calculative with respect to working hours.

**NET self-evaluation** Half of the NET respondents place a very positive value on their own performance. They indicate confidence in their collaborations with local staff, raising the standard of education and the language standard of students.

Another half are not satisfied with the outcomes of their endeavour. However, it should be noted that whereas the local respondents tend to attribute problems to personality factors and the abilities of the NETs, the NETs themselves predominantly ascribe their unsatisfactory performance to the local teaching culture and a system which they considered to constitute constraints beyond their control. They believed their performance to be partly determined by the following factors:

1. The exam oriented system which forces many NETs to forsake quality teaching to give way to teaching towards the exams.
2. The need for NETs to conform to traditional, entrenched practices and expectations of local teachers, parents and students and the consequent difficulty in initiating any real innovations in the system.
3. The difficulty in introducing creative teaching methods because of the heavy reliance on common textbooks.
4. The lack of opportunity for students to speak English outside classroom, no matter how diligently the NETs teach inside classroom, which undermines the long-term impact of NETs on students.

In general, NETs are not dissatisfied with their own abilities or performance; rather they are dissatisfied with the inadequate support given to them to exploit their talents in the local setting. Based on these unfavourable conditions, NETs believe it is impossible for them to function to their fullest potential unless there are changes to the circumstances.

**General Comments and Suggestions on the NET Scheme**

In this part, respondents were requested to give any further comments and suggestions on the operation of NET scheme. Responses can be categorized into three main aspects as follows:
Factors which constitute a successful NET scheme

Based on observations over the 2-year operation of the NET scheme, school personnel recognized several crucial factors influencing the effectiveness of the NET scheme in achieving the three objectives.

Secondary local respondents found the personalities of the NETs and their commitment to contribute to the local education system very crucial to the effectiveness of the scheme. They suggested more careful choice of NETs in recruitment exercise to avoid the variation evident in the qualities of the present NETs and the unfortunate experiences of some schools whose representatives show strong dissatisfaction with their NET. NETs with little commitment to make a real contribution, as one panel chair pointed out, brought about extra workload to those who had to design activities for the NET to carry out. These extreme cases suggest that some of the NETs may be qualified in terms of professional training and teaching experience, but their personalities may not allow them to be an effective resource person.

On the other hand, three expatriate teachers considered their role to be rather passive and their efforts of no consequence in influencing the school syllabus and local teaching approaches. They argued that unless the exam-oriented culture was removed and the teacher-student ratio reduced, they could hardly make any contribution to the school syllabus as proposed in the rationale for the NET scheme. Three local teachers agreed that large class size was a hindrance to both the teaching and learning of English. Under such circumstances, the NETs have to conform to traditional conservative approaches such as teaching to the exams and heavy reliance on textbooks.

The attitude of the local teachers and students towards the NETs is considered to be very important for NETs in helping them make the most of their talents and experience. If the attitude is positive, open and cooperative, NETs will be more encouraged to initiate new teaching methods and influence the school syllabus.

Complaints about the NET scheme

Two local respondents felt that the NET scheme was not cost-effective, given the limited contribution the scheme has made to the school syllabus and the teaching of learning of English so far. (They suggested that the money spent would be much better spent on reducing class size by employing high-quality local teachers who could communicate better with students.)

Generally, NETs’ were dissatisfied with the lack of support from school administrators on their collaboration with local staff and also the ineffective way they are deployed in the schools. One
NET spoke of NETs being isolated in Chinese medium staff meetings with no translation provided. In some cases, NETs were even not expected to attend the meetings. This might explain why some of the NETs experienced difficulties in adapting to the local teaching environment and were not involved in school affairs and administration. Under these constraints, effective collaboration was unlikely to be achieved.

Another NET pointed out that schools are not good at identifying the NETs' special skills, abilities and interests but simply place them into a pre-determined mould, disregarding the uniqueness of the NET's talents and the need of the students. NETs also find that they are caught in a predicament between the contradictory expectations of the Education Department that NETs will act as change agents and the resistance of local staff who cling to traditional teaching practices. Therefore, even though NETs might have very original and creative teaching ideas, they might not be treasured as resource persons in the schools.

Recommendation given by respondents
Although two respondents argued that the amount invested in the scheme outweighs the benefits it brings and proposed the termination of the scheme or a switch to part-time employment of NETs, most of the respondents would like to see the continuation of the scheme and expect improvement to be made in future implementation of the scheme.

To solve the problems of collaboration, 2 panel chairs and one NET proposed to have two NETs in all schools so that they could support each other. In order to strengthen support among NETs of similar background, one NET proposed that the Education Department should provide formal opportunities for them to share experiences and exchange ideas, laying the foundations for a stronger network of NETs.

One of the NETs welcomed the practice of bilingual team teaching with local teachers. This might help to improve collaboration, however, as shown in the case study findings, it also weakens the influence of the NET on students' language proficiency, especially on comprehension skills, since students might rely on the local teacher to translate for them.

To assist the schools to work out the scheme to its utmost effectiveness, it is suggested that ED should consult school personnel regularly to improve the scheme and to work out an effective plan to embrace the skills and talents of the NETs. Also, the Education Department should monitor the schools by requesting them to submit a plan outlining the allocation of duties to the NET.

The Career Plan of NETs
There was one question in the questionnaire for NETs asking about their career plan after the first
contract and invited them to give reasons for their choices. 27 secondary NETs and 12 primary NETs volunteered reasons for their choices. Generally, primary respondents planned not to continue their services in the same school after the first contract simply because further funding from the ED was no longer available for primary schools, except one case that the school was willing to sustain the NET's employment by self-funding. Thus, even though many primary respondents were more satisfied with the scheme than secondary respondents, as reflected in their more positive evaluation of NET scheme, and some of them expressed their wish to stay, most of them could not but leave upon the termination of the first contract.

On the other hand, most secondary respondents preferred to serve in the same school after the first 2-year contract. Among 27 respondents, six of them planned to leave for their home countries or continue their career in another places and one would like to serve in a new school while the rest chose to stay in the school they were serving.

Interestingly, the reason for half of the respondents who would like to stay is the good relationship with the students and local colleagues. These respondents either found that local colleagues were supportive and enthusiastic to get along with them or the students were pleasant and cooperative. Superficially, this is not supported by the findings from the previous sections, as many respondents were not satisfied with the collaboration between NETs and local teachers. Deeper investigation shows that those who planned to stay are fundamentally not the ones who have very negative comments on collaboration or self-evaluation, at least not for most of the cases. Rather they are those who enjoyed collaboration in some aspects with the local colleagues or those who valued their contribution high in the part of evaluation performance. There seems to be a strong correlation between the level of collaboration and NETs' commitment and also between job satisfaction and NETs' decision on future employment.

Ten respondents who have very positive self-assessments or peer assessments as to their contributions to local English education and also 2 more respondents enjoyed cordial collaboration with local colleague chose to stay. There are five respondents who received quite negative comments from local colleagues on their performance or expressed job dissatisfaction wanted to stay mainly because they were working among a group of more supportive and encouraging colleagues or they enjoyed good relationship with students. This indicates that attitudes of students and local colleagues towards the NETs are major factors affecting the commitment of the NET to their teaching career in a foreign place. Therefore, although these NETs are generally not satisfied with the local teaching culture or the tasks given to them, they would rather stay because of their good relationship with the students of the colleagues.

Similarly, although eight respondents showed less than satisfactory perception on the collaboration
with local staff, they still wanted to continue their services in the same school. These respondents found little team-working opportunity and met with some frustration but again, the support from colleagues and students is a retaining force. It is worth noted that these respondents, as well as those did not value their performance high but would like to stay, saw the future development of the NET scheme with an optimistic outlook as reflected by their responses. They expressed that they would like to stay longer to see the scheme grow and develop well. Also, despite the difficulties some of them are encountering, they would stay because they anticipated improvements in the next 2 years.

To conclude, the findings above indicate that collaboration between NETs and local teachers, attitudes of local colleagues and students, peer and self performance evaluation as well as the personalities of the NETs, i.e. optimistic or not, are at work in determining the commitment of NETs to their careers in Hong Kong. This is further supported by the fact that no one of the NETs planning to leave showed positive perception on collaboration or on their contributions to local education, even though they claimed that they would leave because of homesickness or other personal reasons.
This book is due for return or renewal on the date shown unless previously recalled. Fines may be incurred for late return.
Monitoring & evaluation of the native-speaking English teacher scheme (MENETS) : technical report. [Hong Kong] : The Hong Kong Institute of Education. [2001]