

EDUCATION COMMISSION

REPORT NO 1

(RETYPE DOCUMENT)

**October, 1984
Hong Kong**

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CHAPTER I INTRODUCTION

(1) Appointment of the Education Commission

1.1 In the course of considering the observations and suggestions contained in the Visiting Panel's report in February 1984, the Governor-in-Council decided that an Education Commission should be set up to submit to the Governor consolidated advice on the education system as a whole in the light of the needs of the community. The terms of reference of the Commission are as follows:

- (a) to define overall educational objectives, formulate education policy, and recommend priorities for implementation having regard to resources available;
- (b) to co-ordinate and monitor the planning and development of education at all levels; and
- (c) to initiate educational research

1.2 In carrying out these tasks, the Commission is to co-ordinate but not seek to direct the work of the Board of Education, the University and Polytechnic Grants Committee and the Vocational Training Council.

1.3 The Commission's first assignment is to consider the major observations in the report of the Panel and to report back within six months of its commencement and from time to time thereafter.

1.4 The Commission was appointed on 2 April with the following membership:

Chairman : The Honourable Q W Lee, CBE, JP

Vice-Chairman : Secretary for Education and Manpower, the Honourable J N Henderson, OBE, JP

Ex-officio members : Chairman of the Board of Education, represented by Dr Daniel Lam, OBE, JP, replaced by the Honourable Peter C Wong, OBE, JP in July 1984

Chairman of the University and Polytechnic Grants committee, the Honourable Mr Justice T L Yang

Chairman of the Vocational Training Council, Dr the Honourable Francis Y H Tien, OBE, JP

Director of Education, the Honourable C H Haye, CBE, JP

Deputy Financial Secretary, Mr S E Alleyne, JP

Members : Miss K E Barker, MBE, JP
Mrs Betsy Lee
Mr Peter Lee Shung-tak
Professor Brian Lofts, JP
The Honourable Maria Tam Wai-chu, OBE, JP
Dr Raymond Wu, JP
The Honourable Yeung Po-kwan, CPM

1.5 The Honourable Peter C Wong was appointed Chairman of the Board of Education from July 1984 and became a Member of the Commission, replacing Dr Daniel Lam who was Vice-Chairman of the Board of Education until June 1984. We wish to put on record our appreciation of the valuable contribution made by Dr Lam.

1.6 During the months of May to October, a number of ex-officio members were away from Hong Kong and their places on the Commission were taken up by:

Mr A N Savage, Deputy Financial Secretary, in place of Mr S E Alleyne from 5 May to 5 July 1984;

Mr Michael Leung, Acting Director of Education, in place of the Honourable C H Haye from 9 July to 31 August 1984; and

Mr M Pagliari, Secretary for Education and Manpower and Vice-Chairman of the Commission, in place of the Honourable J N Henderson from 4 September to 18 October 1984.

(2) Approach to our first task

1.7 In the concluding paragraph of its report, the Panel remarked, "Here we end where the people of Hong Kong must begin: by talking about curriculum, by coming to grips with those theories of education, structures of knowledge and cultural maps which are to be harmonised so that their education system may flourish and hence their society continue to prosper."

1.8 It is very much in this spirit that we have endeavoured to deal with our first task of examining the educational issues which have been highlighted by the Panel.

1.9 From the outset, we have been keenly aware of the fact that human resources have been, and will remain, a principal asset of Hong Kong, and that education is the key to their development. We are mindful of the tremendous expansion of educational opportunities in the past three decades, an achievement for which a parallel would be difficult to find among our neighbouring countries. We feel, however, that in education there is little room for complacency if the changing needs of society and growing individual aspirations are to be met.

1.10 Underlying our deliberations have been the fundamental issues which have confronted education planners and policy-makers in most parts of the world at one time or another. Some of these are: how do we meet the challenges of mass education up to the senior secondary level at a time of rapid technological and other changes; how do we resolve the problem of the competing demands of, and for, general education on the one hand and technical and vocational education on the other; how do we strike a balance between quantity and quality in education; how

should we apportion investment among school buildings, curriculum development and teachers; how can we achieve greater equity and efficiency in the education system; and above all, how do we harmonise the needs of the community and the wishes of the individual within the resources available?

1.11 We subscribe to the view that there are no universal answers to these questions, and that as suggested by the Visiting Panel, Hong Kong must seek its own answers. In this connection, let it be said here that, on balance, we feel that within the resources available, the needs of the community must first be considered, though in a free society, the wishes of the individual should, within this constraint, be accommodated as far as possible. As the Panel has based its comments "on the assumption that Hong Kong will continue to be an open society, with freedom of the individual to choose within his or her range of ability, achievement and opportunity", we too have assumed likewise. Indeed, as events continue to unfold, we are in a better position than the Panel has been to gauge the likely Hong Kong scene in the 1990' s and beyond.

1.12 We hope, and believe, that the views expressed in the ensuing chapters of this Report are pragmatic and central to the problems encountered in Hong Kong. We are very much conscious of the fact that the issues tackled are all on-going and that it would probably be necessary for us to refer to them again in our subsequent reports for we believe education must be planned as a flexible system in conjunction with changing circumstances and requirements. Nevertheless, we are confident that our first thoughts on these subjects will be consistent with the evolving scene in Hong Kong and that, furthermore, they will go a long way towards ensuring that our education system will flourish and that our community will continue to prosper beyond the immediate future.

(3) Layout of the Report

1.13 The ensuing chapters examine the major observations in the report of the Panel, including:

- (a) the Junior Secondary Education Assessment System (Chapter II);
- (b) the quality of language teaching and the medium of instruction (Chapter III);
- (c) teacher preparation and the teaching service (Chapter IV);
- (d) open university and open education (Chapter V);
- (e) educational research (Chapter VI); and
- (f) the financing of education (Chapter VII).

Our first thoughts on these subjects are recapitulated in Chapter VIII. In Chapter IX, an indication of the tasks ahead is given.

(4) Consultation

1.14 All public comments on the Panel' s report were made available to us and these have been taken into account in our examination of the major issues covered in Chapters II to VII.



CHAPTER II JUNIOR SECONDARY EDUCATION ASSESSMENT SYSTEM

(1) Introduction

2.1 The Junior Secondary Education Assessment (JSEA) System is a centralised system of selection and allocation of F 4 places for F 3 leavers. It came into existence as a result of three factors : firstly, the provision of subsidised post-F 3 education only to those considered suitable - hence the need to assess suitability; secondly, the mix of educational opportunities at the post-F 3 level, viz. senior secondary forms in schools and craft courses in technical institutes - hence the need to allocate suitable students to different streams of education; and, thirdly, the asymmetrical class structure of some of the secondary schools ⁽¹⁾ - hence the need to decide in which school a suitable F 3 leaver should continue his F 4 education.

(1) Asymmetrical schools are schools with more streams in F 1-3 than F 4 and 5. Including approved projects up to Stage IV of the Secondary Schools Building Programme, there are 154 schools with the 555522-type class structure and 162 schools with 6664422-type class structure. In addition, there are 24 pre- vocational schools with the 77722-type class pattern.

2.2 In this chapter, we begin by taking a look at the observations by the Panel, followed by an analysis of the public comments received. We next take stock of the developments in secondary education and the criticisms that have been levelled against the JSEA. We then examine the adequacy and type of educational opportunity after compulsory education ends in F 3. We conclude with our recommendations on the future of the JSEA.

(2) Observations by the Visiting Panel ⁽²⁾

2.3 The Panel considered that "The JSEA should be abolished as quickly as possible. If creation of the corresponding number of places in government schools or in the aided sector is not feasible ... then the alternative should be to improve the quality of the places where they are now." It went on to say that "with the phasing out of the JSEA, admission to senior secondary schools should then be based on internal assessment moderated to accommodate differences in student ability and teacher expectations from school to school." In addition, the Panel was of the view that "subsidised post-compulsory education should be available to anyone who wants it."

(2) The JSEA was dealt with by the Panel under Section III Chapter 2 "Sorting and Sifting" of its report.

(3) Public comments

2.4 Most members of the public, interest groups, school councils and associations, and District Boards were in favour of the abolition of the JSEA through an expansion in the provision of subsidised F 4 and 5 places. A few recognised the need to take the requirements of industry into account.

2.5 Some representations, while endorsing the abolition of the JSEA, considered that admission to F 4 and 5 should be completely at the discretion of the schools concerned. They maintained that the Panel's recommendation that " with the phasing out of the JSEA, admission to senior secondary schools should then be based on internal assessment moderated to accommodate differences in student ability and teacher expectations from school to school" was in fact a description of the JSEA as it exists now.

(4) The development of secondary education

2.6 The development of secondary education underwent rapid changes in the last decade. In 1974, three years after the achievement of universal primary education, the White Paper "Secondary Education in Hong Kong over the Next Decade" promulgated Government's intention to extend the provision of universal and free education from six to nine years by 1979. The White Paper further envisaged that on conclusion of this course of basic education, there should be a public examination by which 40% of the 15-16 age group would be selected to proceed to subsidised senior secondary education. In the event, the target of nine years universal and free education was realised in 1978, one year earlier than envisaged.

2.7 In the same year in the White Paper "The Development of Senior Secondary and Tertiary Education", the Government announced its aim to expand the number of subsidised post-F 3 places in schools and technical institutes to meet the full demand from students who are suitable for the kind of courses which these institutions provide. The White Paper also referred to the Education Department's announcement of the introduction of the JSEA in 1981 and declared that a review would be conducted by 1983 to assess its effectiveness.

2.8 The key to the policy on the provision of post-F 3 education, as laid down in the 1978 White Paper, is the word 'suitable' as it was considered at the time of formulation that some students would have a greater aptitude for practical studies while others would be more inclined towards academic education, and that some would choose to leave school. In our view, this policy should still be applied to-day.

2.9 To determine students' suitability for one or the other type of education, the JSEA was introduced in 1980-81, the year when the first cohort of students under the policy of nine years free and compulsory education completed their F 3 education. The system is based on internal assessments by the schools of their F 3 students in a range of academic subjects, scaled by a centrally administered test in the basic subjects of Chinese, English and Mathematics to ensure a fair comparison of the results between schools.

2.10 Even before the first JSEA was held in 1981, arguments were put forward for its abolition. Experience has confirmed the following grounds:

- (a) the social demand for senior secondary education (F 4-5): In 1983, the actual enrolment in F 4 in the public (subsidised) and private (non-subsidised) sectors was equivalent to 84.6% of the 15-year old population but subsidised places were provided only for some 61%;
- (b) the effect of the JSEA on students: The awareness that not everyone will be allocated a subsidised F 4 place in his own or some other school puts a degree of mental strain on all F 3 students which is often exacerbated by the pressure exerted by parents and teachers. Students who are not selected for allocation may develop a sense of failure and frustration;
- (c) the effect of the JSEA on the curriculum: The JSEA deters the modification of common syllabuses and the adoption of practical and technical subjects. Because it is a requirement of the JSEA that all F 3 students in a participating school ⁽³⁾ must be

⁽³⁾ All government, aided and private schools with bought places are required to participate in the JSEA.

tested in the same way, teachers tend to use identical teaching syllabuses for all their students with little regard for differences in ability and aptitude. Thus school-based curriculum development and more child-centred approaches in teaching and testing are inhibited; and

- (d) the fairness of the system: When the JSEA was first introduced, there were doubts about the reliability of the results of the scaling process, particularly in view of the differences between schools in terms of curricula and assessment methods. These misgivings remain even though the selection and allocation procedures of the JSEA have improved.

2.11 In arriving at our recommendations in this chapter, we have given careful consideration to the arguments outlined above.

2.12 To eliminate any form of selection and allocation, subsidised F 4-5 places would have to be provided in every school for all its F 3 leavers. However, we consider such a course to be neither desirable nor practical:

- (a) it is undesirable because it does not take account of the needs of the community for different types of educated talent and the different aptitude and inclinations of students; and

- (b) it is impractical because it requires the re-structuring of every asymmetrical public-sector and non-profit making bought-place school so as to provide for the same number of F 4 places as its F 3 student enrolment. Given the physical constraint, this can only be achieved by the displacement of some F 1-3 classes. To accommodate the displaced classes, so many additional secondary schools would have to be built (estimated to be 114 by 1993) that they cannot be completed by 1993 even if the funds required were available. The alternative would be to buy F 4-5 places in private independent schools which is not the current approved policy, and which will have the adverse effect of extending and perpetuating bought places in the less satisfactory private schools.

2.13 We believe that post-F 3 education should take diverse forms in accordance with the policy laid down in the 1978 White Paper referred to in paragraph 2.8 above. We RECOMMEND that there should be an expansion in the mix of subsidised post-F 3 educational opportunities, comprising vocational education in the form of one-year full-time basic craft courses in technical institutes and training centres which may be furthered by part-time day release craft courses through apprenticeship schemes, as well as general education in the form of F 4 places in secondary schools. We believe that the two types of education are comparable and are equally important and meaningful for the community and individuals.

2.14 Our deliberations in the following paragraphs are, therefore, centred on the respective rates of provision for the different streams of education up to the period 1993, having regard to the needs of the community for different types of educated talent and the likely student demand for subsidised post-F 3 education in the light of the most up-to-date population projections listed below:

<u>Year</u>	<u>Estimated 15-year old population</u>
September 1985	85200
September 1986	85200
September 1987	85400
September 1988	85400
September 1989	84500
September 1990	82300
September 1991	79500
September 1992	82300
September 1993	82300

(5) Provision of full-time basic craft places

2.15 We subscribe to the view that the rate of provision of full-time craft places must be related to the needs of industry for trained craftsmen although regard should also be given to the student demand for this type of training ⁽⁴⁾. In a free economy such as exists in Hong

⁽⁴⁾ In 1983 there were 22,266 applications (of which 12,833 were received through the JSEA system from current F 3 leavers) for the existing one-year full-time craft courses, but only 1,894 places were available.

Kong where the demand for workforce can change rapidly in response to changes in the structure of industry, reliable manpower forecasts are extremely difficult to develop. Nevertheless, for the purpose of educational planning and bearing in mind the lead-time required to construct technical institutes and to prepare the associated teaching personnel, we believe that some guideline figures should be arrived at. In our considerations, we were greatly assisted by the findings of the latest manpower surveys conducted by the Vocational Training Council and the Education Department's forecast of student demand.

2.16 On the basis of these inputs, we RECOMMEND that for the purpose of educational planning, a total annual provision of 7,600 one-year full-time basic craft places should be allowed for from about 1989-90 onwards. We believe that this level of provision would, on the one hand, satisfy the needs of industry; and, on the other, meet the greater part of the likely student demand for full-time craft courses without resulting in a glut of craftsmen.

2.17 The proposed provision of 7,600 one-year basic full-time craft places exceeds the capacity of the existing and planned technical institutes and training centres which, on full development in 1987, will provide a total of 7,000 such places. The difference of 600 is due to a proposal by the Vocational Training Council to provide one-year full-time bridging courses to technician studies for those graduates from full-time craft courses in technical institutes who, in the course of the

craft training year, have shown themselves suitable for technician training. ⁽⁵⁾ The Vocational Training Council plans to start on a modest scale and expand to full provision of 600 places by 1988, representing about 15% of the planned student enrolment in full-time craft courses in technical institutes. As the end-on courses are intended

⁽⁵⁾ This proposal is a modified version of a recommendation by a consultant (Mr R L Helmore) to the Vocational Training Council on technical education, who advocated the extension of the duration of full-time craft courses from one year to 18-24 months of technical education and industrial training so that students could proceed by means of bridging units to technician courses and enjoy exemption from more than one year of an apprenticeship. The Vocational Training Council has advised against the implementation of this recommendation on two grounds: firstly, due to limitations on accommodation an increase in the duration of one-year full-time craft courses would necessitate a reduction in the planned intake to these courses and hence in the number of craft trainees available to the labour market; and, secondly, from a training viewpoint it would be difficult to provide in the technical institutes both the intensive practical training, which would be necessary if successful completion of the two year courses were to lead to exemption from more than one year of apprenticeship (to which few employers would agree) , and the general education necessary to prepare students for technician level study.

to be a bridge to technician studies, the provision of an additional 600 places on the one-year full-time craft courses will be needed to maintain the potential craft output at the same level. The proposed 7,600 full-time basic craft places include the additional 600 places required.

2.18 The Vocational Training Council will be proposing the provision of an additional technical institute in the late 1980's to accommodate the 600 places for the bridging courses and the consequential shortfall of 600 full-time basic craft places to maintain the output of craft trainees required annually by industry.

2.19 If the proposal by the Vocational Training Council to run one-year full-time bridging courses to technician studies for about 600 selected graduates of full-time craft places in technical institutes is accepted by the Government, this will necessitate the provision of an additional 600 one-year full-time craft places. Since the existing and approved technical institutes and training centres will not be able to cope with this additional requirement, we RECOMMEND the provision of an additional technical institute by, say, 1989. The proposed technical institute will also provide the flexibility needed to meet the student demand (estimated at 8,500 full-time basic craft places by the Education Department) and any emerging manpower requirements as Hong Kong enters the 1990's.

(6) Provision of subsidised F 4 places

2.20 In 1983 the rate of provision of subsidised F 4 places was equivalent to some 61% of the 15-year old age

group as compared with the 84.6% actually enrolled in subsidised and non-subsidised F 4 places. The rate of provision of subsidised places will increase in 1988 on completion of the additional new schools (6664422 in class structure) approved for Stage V (Phase I) of the Secondary Schools Building Programme for the specific purpose of phasing out F 1-3 bought places in the less satisfactory private schools. When the need for a Stage V (Phase I) of the building programme was first agreed, it was thought that 36 new schools would be required, having regard to the 1981-based population projections and assuming no provision for repetition places. Since then, the population projections have been revised downwards as a result of Government's policy on immigration from China. On the basis of the latest population projections as detailed in paragraph 2.14 above, it is now estimated that a total of 11 schools only will be required (four in 1987 and seven in 1988) to achieve the stated objective.

2.21 We are concerned that there is no provision for repetition places in the approved Secondary Schools Building Programme. We are aware that repetition takes up additional school places and is, therefore, costly from a financial point of view. Also, repetition is not necessarily the best answer for every child with a learning problem. Nevertheless, it is unrealistic to assume that repetition can be eliminated completely.

2.22 In our view, repetition is necessary in certain circumstances, for example, prolonged absence from school due to illness. It may also be beneficial to some children who are immature for their age or whose achievement is inadequate in that it gives them time to catch up and reinforces what they have learnt. Moreover, to promote pupils irrespective of their attainment level would lower

academic standards, adversely affect pupils' incentive to learn and teachers' motivation to teach, and create pedagogical problems by increasing the ability range within a class.

2.23 At present, an average of 7% secondary places are taken up by repeaters. We believe that unless an appropriate rate of provision is allowed for repetition in calculating the number of schools to be built, the F 1-3 bought places in the less satisfactory private schools will only be phased out on paper but not in actual practice.

2.24 Taking into account the factors described in the above paragraphs, the efforts now devoted to remedial teaching as well as our recommendations in the following chapter on the greater use of Chinese as the medium of instruction and under paragraph 2.36 below on the revision of the secondary school curriculum, we RECOMMEND that a 5% rate of provision for repetition should be adopted for the purpose of planning the secondary school requirement. In the long-term, we would wish to see this rate further reduced when remedial teaching measures have sufficient time to take effect. We believe that the need for repetition should diminish through progressive school-based curriculum development and more child-centred approaches in teaching and testing.

2.25 On the basis of a 5% provision for repetition and taking into account the number of places available in existing and approved secondary schools as well as the 11 additional schools in Stage V (Phase I), we RECOMMEND the building of 10 new schools of a class structure of 6664422 (four in 1991 and six in 1992) under a Stage V (Phase II) of the Secondary Schools Building Programme to meet the projected requirement for repetition up to the period 1992. As and when the rate of provision for repetition is

reassessed and modified, a compensatory adjustment of the school requirement should also be made in any subsequent stages of the building programme outside the planning period covered in this chapter.

2.26 The provision of the 10 schools proposed in the preceding paragraph together with the 11 new secondary schools under Stage V (Phase I) of the building programme will increase the rate of provision of subsidised F 4 places to about 76.4% of the 15-year old population by 1991. This, however, still falls short of the actual enrolment for F 4 education which stood at 84.6% in 1983.

2.27 To meet fully this demand for F 4 education, we RECOMMEND the further expansion of subsidised F 4 places through a combination of building 14 (4 pre-vocational and 10 secondary) schools and buying F 4 places in the satisfactory private independent schools. Specifically, we RECOMMEND:

- (a) modifying the class pattern of pre-vocational schools: At present, the 24 existing pre-vocational schools are organised on a class pattern of 77722. To allow for the provision of more promotion places for F 3 leavers in these schools, it is proposed to modify the class pattern of these schools to 66644 in 1989, following the completion of Stage V (Phase I) of the building programme;
- (b) building four new pre-vocational schools: The proposed revised class structure of the pre-vocational schools would involve a total loss of about 24 classes each at the

F	1-3	level.	To
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make good the shortfall and to provide more subsidised F 4 and above places, four new pre-vocational schools of 6664422 class structure are proposed to be made available in 1989;

- (c) buying F 4 places in the satisfactory private independent secondary schools to provide promotion places for F 3 leavers in these schools: For the reason given in (d) below, it is proposed that Government should start buying F 4 places in the satisfactory private independent secondary schools from 1990 onwards to provide promotion places for F 3 leavers in these schools; and
- (d) building 10 additional secondary schools: To enable the recommendation in (c) above to be carried out smoothly, it will be necessary to buy fewer F 1 places in the satisfactory private independent schools in 1990 so that they can use the spare accommodation to operate more F 4 classes. To compensate for the loss of these F 1-3 bought places and to provide more subsidised F 4 and above places, it will be necessary to build 10 additional new schools of 6664422 class structure. Nine of the proposed 10 schools will be needed in 1990 and the remaining one will have to be ready in 1993-94 to help meet the increased demand expected to arise from demographic changes at that time.

2.28 We RECOMMEND that the additional 14 new schools proposed in (b) and (d) above should become Stage VI of the Secondary Schools Building Programme.

2.29 We also RECOMMEND that for planning purpose the phasing of the 24 schools proposed (10 under Stage V (Phase II) and 14 under Stage VI) and the 11 schools approved under Stage V (Phase I) of the building programme, should be as follows:

	<u>No. of Schools to be Completed in Year</u>							<u>Total</u>
	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	
Stage V (Phase I) (approved)	4	7	-	-	-	-	-	11
Stage V (Phase II) (proposed)	-	-	-	-	4	6	-	10
Stage VI (proposed)	-	-	4	9	-	-	1	14
Total	<u>4</u>	<u>7</u>	<u>4</u>	<u>9</u>	<u>4</u>	<u>6</u>	<u>1</u>	<u>35</u>
Cumulative	(4)	(11)	(15)	(24)	(28)	(34)	(35)	(35)

2.30 Taking into account the existing secondary schools, the approved and proposed additional secondary and pre-vocational schools, the proposed revision of the class pattern of the existing pre-vocational schools and the proposal to buy F 4 places from satisfactory private independent schools, the provision of subsidised F 4 places will increase to 85.6% in 1991 as shown in Annex (1). The provision of more subsidised post-F 3 places over the intervening years will also progressively reduce the strain on F 3 pupils posed by the JSEA.

2.31 Compared with a provision of 141 new secondary schools under Stages I-IV and Stage V (Phase I) of the building programme since the 1974 White Paper, we consider that a territory-wide programme of 10 new schools for Stage V (Phase II) and 14 new schools for Stage VI, spread over five years from 1989 to 1993, is not unrealistic.

(7) Phasing out of the JSEA

2.32 If the recommendations in paragraphs 2.16, 2.24 to 2.29 above are implemented, the total provision of subsidised full-time post-F 3 places would reach some 95.2% (85.6% in F 4 places and 9.6% in one-year full-time basic craft places) of the 15-year old population in 1991 as shown in Annex (1). Bearing in mind that there will always be some children who would prefer not to proceed to further full-time education after F 3, we believe that this order of provision will satisfy the demand for post-F 3 education.

2.33 Accordingly, subject to:

- (a) the provision of more full-time basic craft places;
- (b) the provision of more secondary and prevocational schools;
- (c) the revision of the class pattern of the existing pre-vocational schools;
- (d) the buying of F 4 places from satisfactory private independent schools; and

- (e) the formulation of a new means of placement (as explained in the following paragraph),

we RECOMMEND that the JSEA should be phased out in 1991.

2.34 We believe that with the implementation of these proposals and the consequential increase in the provision of subsidised post-F 3 places for some 95.2% of the 15-year old population in 1991, the JSEA could be phased out because every F 3 leaver who wishes to continue his education will be allocated a subsidised place in either the general or practical stream of education. However, if the above proposals, in particular the provision of the additional schools, were not accepted, the rate of provision of subsidised post-F 3 places will drop to 83.2% in 1991 and 80.3% in 1992. At this rate of provision, it would be difficult for the JSEA to be phased out.

2.35 Even with the provision of subsidised post-F 3 education for every student who wishes to proceed beyond the nine-year compulsory education, it will still be necessary to devise a means of allocating children to F 4 places in their own or other schools or to technical institute/training centre places. The formulation of a new means of placement will need to be undertaken in close consultation with school principals and relevant bodies and committees. If our recommendation to phase out the JSEA in 1991 is accepted, the Education Department will look into the matter.

2.36 The expansion of subsidised F 4 places must, in our view, be accompanied by a broadening of the curriculum to cater for a wider range of ability. More emphasis, for example, will have to be given to technical/practical subjects. In addition, the examination system will need to be reviewed and modified as appropriate. We accordingly RECOMMEND that the Education Department should continue its present efforts to revise the curriculum for secondary education and similarly the Hong Kong Examinations Authority should revise the examination system, both of these to proceed in parallel with the provision of more subsidised post-F 3 places to achieve the phasing out of the JSEA.

2.37 Notwithstanding whatever decision on the future of the JSEA, we RECOMMEND that the Education Department should now conduct the formal operational review of the JSEA originally scheduled for 1983 in the 1978 White Paper (paragraph 2.7 above) but subsequently deferred in order not to pre-empt consideration of the Panel's report. In our view, one of the main purposes of the review should be to lighten the administrative burden of the JSEA on the participating schools and to consider the position of symmetrical schools.

(8) Summary of recommendations

2.38 In sum, we RECOMMEND that:

- (a) the provision of subsidised post-F 3 education opportunities, comprising vocational education in the form of one-year full-time basic craft courses in technical institutes and training

centres as well as general education in the form of F 4 places in secondary schools, should be expanded (paragraph 2.13);

- (b) for the purpose of educational planning, a total annual provision of 7,600 one-year full-time basic craft places should be allowed for from about 1989-90 onwards (paragraph 2.16);
- (c) if the proposal by the Vocational Training Council to run one-year full-time bridging courses to technician studies for about 600 selected graduates of full-time craft courses in technical institutes is accepted by the Government, an additional technical institute should be provided by, say, 1989 to meet the consequential additional number of full-time basic craft places required to maintain the output of craft trainees required by industry (paragraph 2.19);
- (d) a 5% rate of provision for repetition should be adopted for the purpose of planning the secondary school requirement and 10 new schools should be built under a Stage V (Phase II) of the Secondary Schools Building Programme (paragraphs 2.24 and 2.25);
- (e) the class pattern of existing pre-vocational schools should be modified from 77722 to 66644 and four

new pre-vocational schools should be provided under a Stage VI of the building programme to accommodate the displaced lower forms (paragraph 2.27 (a) and (b));

- (f) F 4-5 places in satisfactory private independent schools should be bought and the consequential reduction in F 1-3 bought places should be compensated by the provision of 10 new schools under a Stage VI of the building programme (paragraph 2.27 (c) and (d));
- (g) for planning purpose the 24 schools proposed under Stage V (Phase II) and Stage VI of the building programme should be provided over the period 1989 to 1993 (paragraph 2.29);
- (h) the JSEA should be phased out in 1991 subject to the acceptance and implementation of the recommendations at items (a) to (g) above and to the formulation of a new means of placement to be devised by the Education Department (paragraphs 2.33 to 2.35);
- (i) the curriculum for secondary education should continue to be revised and the examination system should be reviewed and revised as appropriate in parallel with the provision of more subsidised post-F 3 places to achieve the phasing out of the JSEA (paragraph 2.36); and

- (j) the Education Department should now conduct the deferred formal operational review of the JSEA (paragraph 2.37).

(9) Financial implications

2.39 The implementation of our proposals relating to the phasing out of the JSEA will require additional resources. However, as the financial implication for the provision of 36 schools to provide sufficient junior secondary places of acceptable standards have already been accepted and as only 11 schools are now required to achieve this objective following a downward revision in population projections (as described in paragraph 2.20 above), we feel that the 'savings' thus accrued should be used to offset a greater part of the additional costs required for the phasing out of the JSEA.

2.40 The estimated financial implications of the various recommendations relating to the phasing out of the JSEA, adjusted to reflect the 'savings' accrued from the downward revision of population projections, are tabulated below:

Estimated financial implications of recommendations related to
the phasing out of the JSEA adjusted to reflect the latest population projections

I. Estimated financial implications of recommendations related to the phasing out of the JSEA

(\$mn)

	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>
(A) <u>Non-Recurrent</u>											
1. 24 secondary schools		3	18	52	93	91	70	40	11	1	
2. 1 technical institute			18	97	23						
Sub-total		<u>3</u>	<u>36</u>	<u>149</u>	<u>116</u>	<u>91</u>	<u>70</u>	<u>40</u>	<u>11</u>	<u>1</u>	
		—	—	—	—	—	—	—	—	—	
(B) <u>Recurrent</u>											
1. 24 secondary schools					6	21	44	81	116	141	
2. 1 technical institute					28	48	48	48	48	48	
3. F4-5 bought places						12	29	34	34	34	
Sub-total					<u>34</u>	<u>81</u>	<u>121</u>	<u>163</u>	<u>198</u>	<u>223</u>	
					—	—	—	—	—	—	
(C) <u>Total</u>		3	36	149	150	172	191	203	209	224	
		—	—	—	—	—	—	—	—	—	

II. Effect of the latest population projections on accepted commitment to phase out unsatisfactory F 1-3 bought places

(1) Original estimated financial implications of implementing Stage V (Phase I) of the Secondary Schools Building Programme (36 schools)

	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	(\$mn)
(A) Non- Recurrent	3	16	45	79	88	114	136	75	13			
(B) Recurrent				6	24	49	85	136	187	222	238	
(C) Total	<u>3</u>	<u>16</u>	<u>45</u>	<u>85</u>	<u>112</u>	<u>163</u>	<u>221</u>	<u>211</u>	<u>200</u>	<u>222</u>	<u>238</u>	
	—	—	—	—	—	—	—	—	—	—	—	

(2) Revised financial requirement for Stage V (Phase I) (as a result of the downward revision in population projections, only 11 of the 36 schools are now required)

(A) Non- Recurrent	3	16	44	65	39	7						
(B) Recurrent				6	24	46	64	72	74	74	74	
(C) Total	<u>3</u>	<u>16</u>	<u>44</u>	<u>71</u>	<u>63</u>	<u>53</u>	<u>64</u>	<u>72</u>	<u>74</u>	<u>74</u>	<u>74</u>	
	—	—	—	—	—	—	—	—	—	—	—	

(3) Savings (Item II (1) minus item II (2))

(A) Non-Recurrent			1	14	49	107	136	75	13			
(B) Recurrent						3	21	64	113	148	164	
(C) Total			<u>1</u>	<u>14</u>	<u>49</u>	<u>110</u>	<u>157</u>	<u>139</u>	<u>126</u>	<u>148</u>	<u>164</u>	
			—	—	—	—	—	—	—	—	—	

III. Net additional financial requirement to phase out the JSEA (Item I minus item II (3))

(A) Non-Recurrent			2	22	100	9	-45	-5	27	11	1	
(B) Recurrent						31	60	57	50	50	59	
(C) Total			<u>2</u>	<u>22</u>	<u>100</u>	<u>40</u>	<u>15</u>	<u>52</u>	<u>77</u>	<u>61</u>	<u>60</u>	
			—	—	—	—	—	—	—	—	—	

Notes: (1) All estimates are based on financial years, namely 1 April to 31 March, and on 1984 prices.

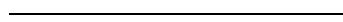
(2) The phasing of the 24 schools proposed is:

September 1989	4 schools
September 1990	9 schools
September 1991	4 schools
September 1992	6 schools
September 1993	1 school

The full recurrent cost, estimated to be in the order of \$242 million, will not arise until financial year 1997-98 when all the schools operate to full capacity.

(3) The 9 schools due for completion in 1990 will not be required to operate F 4-5 classes in 1990 and 1991.

(4) The full capital and recurrent costs for building and running a technical institute is included although only a small part of this institute is required for the phasing out of the JSEA.



CHAPTER III LANGUAGE IN EDUCATION

(1) Introduction

3.1 Language is the principal instrument for communication, and nowhere is this role more decisive and far-reaching in its effects than in the schools. In our deliberations on the question of language in education, we have taken into account pedagogical considerations as well as developments in the wider political, social and economic front which we believe also have a bearing on the issue.

3.2 In this chapter, we begin by taking a look at the Panel's observations and examining the extensive and diverging comments received from the public. We then discuss the two related issues of the teaching of languages and the medium of instruction in schools. We wish to stress that the conclusions reached in this chapter may need to be refined when the findings of a number of important research projects on the medium of instruction in secondary schools, referred to in paragraph 3.17 below, are available.

(2) Observations by the Visiting Panel ⁽⁶⁾

3.3 Critical of the standard of English of both teachers and pupils, the Panel advocated a strengthening of the preparation for teachers of English and a reversal of the 'localisation of staffing policy' to allow for the employment of more native English speakers and fluent speakers of English in schools as English teachers.

⁽⁶⁾ the Panel's observations are recorded in Section III Chapter 1 "Languages in the Classroom", Section III Chapter 2 "Sorting and Sifting" paragraphs III.2.15- III.2.18 and Section III Chapter 8 "The Teaching Service" paragraph III.8.14 of its report.

3.4 It was equally concerned about the present position regarding the use of English as a teaching medium in secondary schools, which it considered had magnified many of the problems associated with schooling in Hong Kong, such as excessive hours of homework, quiescent pupils and rote learning. The Panel argued for a progressive shift from mother-tongue education in kindergartens and primary schools to genuinely bilingual programmes in the junior secondary forms so that by the end of F 3 students would receive approximately half of their instruction in each language. Noting that mandating Chinese as the medium of instruction in junior secondary education would be difficult for practical and political reasons, it proposed to encourage the use of Chinese by a scheme of 'positive discrimination' in favour of schools which use Chinese as the medium of instruction. It further proposed to change parents' and employers' attitude towards Chinese as a teaching medium.

(3) Public comments

3.5 The most extensive and, to a certain extent, controversial comments were expressed by the public on the standard of language teaching and on the medium of instruction in secondary schools.

3.6 On language teaching, there was general agreement that the emphasis on English in schools could not be reduced if Hong Kong were to retain its position as a leading international industrial, commercial and financial centre; that the language standard of students in both Chinese and English must be improved; and that the teaching of Chinese and English must be strengthened at all levels.

3.7 On the medium of instruction in secondary schools, the views aired were diverse. At the risk of over-generalising, there appeared to be three major schools of thought:

- (a) some schools and members of the public favoured English as the sole medium of instruction in secondary schools although they did not propose that this be applied across the board;
- (b) other interest groups and educational bodies advocated the mandatory use of Chinese as the medium of instruction in junior secondary forms. Certain educational organisations further supported the adoption of Chinese as the medium of instruction in senior secondary forms too; and
- (c) yet other community and business organisations, school councils and members of the public wanted a progressive shift in the medium of instruction from Chinese to English through the secondary school system.

(4) Teaching of languages in schools

3.8 We subscribe to the view that Hong Kong must educate its younger generation to be competent in both Chinese and English. From an educational point of view, an inadequate command of languages hampers learning. From a wider economic and political perspective, Chinese is likely to assume greater significance while English will still be essential as an international means of communication in

commerce and industry. For Hong Kong to retain its position as a leading international centre of finance, trade and industry, we are convinced that bilingualism is essential.

3.9 We further believe that the quality of language teachers must first be improved if the standard of languages in schools is to be raised. We accordingly endorse the series of co-ordinated measures that Government has implemented towards this end ⁽⁷⁾, including:

- (a) the establishment of an Institute of Language in Education (ILE) to raise the quality of language teaching in schools. The ILE, established in 1982, has so far provided refresher training to 300 English and 300 Chinese language teachers in primary schools. By 1986-87, it is expected to train 1,000 teachers per year (500 English and 500 Chinese). Courses will be extended to language teachers in secondary schools at a later stage;
- (b) the provision of extra teachers in secondary schools for remedial language teaching in recognition of the wider range of pupils' ability and aptitude. Each standard-sized secondary school has been provided with two additional graduate teachers for remedial teaching in Chinese and English;

⁽⁷⁾ These measures were approved by the Executive Council in June 1980 and April 1981.

- (c) the revision of the English language syllabuses for primary and secondary schools to give pupils more opportunity to use English as a tool of communication and to ensure that the kind of English learnt serves their needs for employment and further studies. The revised syllabuses for P 1-3 have been introduced in 1984 and the others will be introduced in phases: P 4-6 in 1985, F 1-2 in 1986, F 3 in 1987 and F 4-5 in 1988. New coursebooks, workbooks and teachers' guides are also being produced;
- (d) the installation of a wire-free induction loop system to offer primary and secondary pupils more opportunities of listening to spoken English material. As at February 1984, such a system has been installed in 845 primary and secondary schools; and
- (e) the carrying out of research projects to identify and evaluate current practices in secondary schools, to ascertain the effects of the language of instruction on the educational attainment of students of different ability and to assess the proportion of students fitted for different modes of medium of teaching. A number of research projects have been completed, others are being undertaken and are expected to be finished in 1985.

3.10 We note that consideration is still being given to two related proposals in the series of co-ordinated measures, namely:

- (a) the introduction of a language and communication course for the Sixth Form to strengthen the communicative skills of students. No agreement has been reached on whether this new subject should be introduced, whether it should be compulsory, and whether it should include communicative skills in both Chinese and English in a syllabus designed as a single whole; and
- (b) the establishment of a Chinese Language Foundation to publish good quality instructional and general reading materials in Chinese for primary and secondary pupils and others, to promote the wider use and position of the Chinese language in the community, and to conduct or sponsor research projects on the use of modern Chinese.

3.11 These efforts apart, we consider that the quality of Chinese Language teaching in secondary schools should be further strengthened. We have come to this view in the light of a report prepared by a working party⁽⁸⁾. Apart

⁽⁸⁾ The working party was set up in 1980 under the auspices of the Education Department with representatives from secondary schools, Colleges of Education and the School of Education of the University of Hong Kong to identify difficulties and problems encountered over the teaching of Chinese subjects in secondary schools and to propose solutions.

from factors such as the social and economic pressure on schools to place greater emphasis on English to the detriment of Chinese, the working party found that the main problem with regard to the teaching of Chinese was that the teachers of that subject had a heavier workload than other teachers. This was because following the revision of the Chinese Language syllabus in 1978, the scope of the subject was broadened and a great deal of emphasis was placed on listening and speaking. As a result, much more supplementary reading material and comprehension exercises were introduced to improve reading and writing skills. In addition, although the Curriculum Development Committee recommended that the number of periods for Chinese Language should be increased from the usual 4-5 to 6-7 per five-day week to cope with the expanded syllabus, many schools had not done so. This meant that in order to carry the standard teaching load of about 30 periods per week, many teachers had to teach four or more classes of Chinese Language as well as a number of periods of Chinese History, Chinese Literature and/or other subjects. Coupled with a very heavy marking load, teachers have little time to attend training courses and seminars to the detriment of the quality of Chinese Language teaching.

3.12 Taking into account the factors described above and the working party's conclusion that the total teaching load of a Chinese subject teacher should range from 26-28 periods per 5-day week (compared with the standard 30 periods) and that he should not teach more than three classes of Chinese Language, we RECOMMEND that an additional graduate teacher of Chinese should be provided to every secondary school with 18 classes or more. The quality of Chinese teaching in smaller secondary schools (totalling 24 as at September 1984) will also need to be improved. However, as the

Chinese teaching load in these schools does not justify the provision of an additional teacher, other solutions will need to be devised. We shall give this further consideration in the next phase of our work.

3.13 We further RECOMMEND that the standard of English teachers and the quality of English teaching in schools should be improved by the recruitment of expatriate lecturers of English for the Colleges of Education and the Institute of Language in Education. In addition, we note that although the existing code of aid for secondary schools allows schools to recruit up to three qualified expatriate language teachers, only a small proportion of schools have used this provision, largely because of the difficulty encountered over provision of housing for expatriate teachers. In our view, this problem is not insuperable and there is definite educational benefit to be gained from teaching English in schools by native English speakers. Accordingly, we RECOMMEND that secondary schools should be encouraged to employ locally available native English speakers with teaching qualifications to teach English.

(5) Medium of instruction in schools

3.14 At present, virtually all kindergartens and primary schools use Chinese as the medium of instruction. Some exposure to English is available in most kindergartens while English is taught in primary schools as a second or first foreign language. Since this is broadly in line with what the Panel proposed and also accords with the comments expressed by the public, we propose no change.

3.15 At the secondary level, Chinese and English are taught as individual subjects in the respective languages while individual school authorities decide the medium of instruction for the other subjects. The traditional distinction that Anglo-Chinese schools use English as the language of instruction and Chinese middle schools use Chinese has become blurred with the expansion of universal junior secondary education and both languages are, in fact, being used in varying degrees in both types of schools. This evolution is within the broad framework of the Government policy, which is that individual school authorities should themselves decide whether the medium of instruction should be English or Chinese for any particular subject in junior secondary forms⁽⁹⁾

3.16 In considering the question of medium of instruction in secondary schools, we have availed ourselves of details of a number of research projects which have already been completed, including:

- (a) a comprehensive survey by the Educational Research Establishment (ERE) of the Education Department on the language and subject textbooks used in secondary schools, and on the time-tables of secondary schools in the public sector;

⁽⁹⁾ Paragraphs 2.16-2.18 of the 1974 White Paper on Secondary Education in Hong Kong Over the Next Decade and paragraph 5.23 of the 1978 White Paper on The Development of Senior Secondary and Tertiary Education.

- (b) a pilot study by ERE on the effects of different modes of medium of instruction on education attainment of students studying in secondary schools which operate both Anglo-Chinese and Chinese middle classes. Results indicated that top students in the Anglo-Chinese stream generally performed better in the three scaling tests of Chinese, English and Mathematics in the Junior Secondary Education Assessment System than their counterparts in the same ability bands in the Chinese middle stream; and
- (c) a comparison, by the Chinese University of Hong Kong (CUHK), of the Hong Kong Certificate of Education Examination results of students from the two different language streams. The findings similarly showed that pupils from Anglo-Chinese schools performed better than their counterparts in the same ability bands in the Chinese middle schools.

3.17 Other research projects are still in hand and are likely to be completed in 1985, including:

- (a) a study by ERE, in collaboration with the University of Hong Kong (HKU), on the effect of different language modes of instruction upon F 3 students of various levels of bilingual performance;

- (b) a study by ERE, again with HKU, on the effect of teaching History and Science at Form/Middle 2 level in different language modes to students of different ability;
- (c) a joint study by ERE and HKU to assess the amount of English that can be used with students of different ability by tracing their performance in Mathematics, History and Science through F 1-3; and
- (d) another joint study by ERE and CUHK to make in-depth comparisons of attainments at the junior secondary level between Chinese middle and Anglo-Chinese secondary school students and to find out the causes for the lower standards of Chinese middle school students as indicated in the studies referred to under paragraph 3.16 (b) and (c) above. It is essential to establish whether this is attributable to the medium of instruction, or to factors such as the social and cultural background of students, or the difference in school facilities, or the quality of teaching or a combination of these factors.

3.18 The findings of these studies would shed more light on the effects of different modes of medium of instruction on students. On the assumption that these research efforts would substantiate the two popular

beliefs, namely: that all other things being equal, teaching and learning would be generally more effective if the medium of instruction were the mother tongue, a view endorsed by the Panel, and that the consequential loss of exposure to English might result in a fall in the standard of the latter language, we RECOMMEND that individual secondary school authorities should be encouraged to adopt Chinese as the medium of teaching. We consider that this should be achieved not by mandatory action but by a policy of 'positive discrimination' in favour of schools which adopt Chinese as the medium of teaching.

3.19 We further RECOMMEND that secondary schools which use Chinese as the instructing medium should be given additional resources to strengthen the teaching of English to avert any consequential drop in the standard of English due to reduced exposure. A standard-sized secondary school which teaches everything other than English in Chinese should, in our view, be provided with the maximum assistance, comprising:

- (a) two additional teachers of English, possibly one graduate and one non-graduate, so that English lessons in F 1-2 can be conducted in smaller classes which is a more effective pedagogical approach;
- (b) movable partitions for dividing classrooms to create the additional rooms required as a result of split classes;
- (c) a second wire-free induction loop system to schools which are eligible for one or more additional English teachers; and
- (d) a one-off library grant for the purchase of additional reading materials in English as well as other teaching aids.

3.20 As for other secondary schools, we RECOMMEND that their eligibility for additional resources and the quantum should be determined having regard to the amount of teaching conducted in Chinese.

3.21 In addition to the provision of additional resources, we RECOMMEND that the Government should:

- (a) make available a set of comprehensive and clear guidelines to assist individual secondary school authorities to decide on the language mode of instruction. The guidelines may, amongst other things, include the possible language medium models and how schools can shift from Chinese to English by level, by stream, by subject or by a combination of these methods having regard to their individual circumstances;
- (b) provide secondary schools with information on the English proficiency of their F 1 entrants to assist them in grouping their pupils;
- (c) modify teacher preparation for new and serving teachers to prepare for a wider use of Chinese in the classroom;
- (d) compile handbooks with technical terms in both languages for the various subjects taught in secondary schools and issue them to secondary school teachers;

- (e) redesign the Chinese and English syllabuses and arrange for the publication of textbooks in both languages so that they will be available to all schools regardless of the language mode chosen. Bilingual textbooks, although more expensive, should not be ruled out; and the existing textbook grant scheme should be reviewed and adjusted as necessary; and
- (f) put an end to the distinction between Anglo-Chinese and Chinese middle schools by encouraging the removal of such references from the names of schools.

3.22 In recommending that individual school authorities should continue to decide for themselves the medium of instruction but with the aid of clear and comprehensive guidance from Government and with proper teaching material in support of their choice, we are not unaware of the very forceful arguments put forward in favour of the mandating of Chinese as the medium of instruction. We have decided against this approach in the belief that education should allow the greatest possible development for students having regard to their different needs and aptitudes. Should Chinese be mandated as the teaching medium, for example, students in some schools which have used English quite successfully would be deprived of the chance to learn through the English medium.

3.23 It is sometimes argued that unless schools were compelled to use Chinese as the medium of instruction, parental pressures would result in the use of English as the medium in all schools. This argument, however,

ignores the fact that, given the present freedom of choice, both languages are already being used in varying degrees in both Anglo-Chinese and Chinese middle schools. We believe that the removal of the now largely defunct distinction between Anglo-Chinese and Chinese middle schools proposed in paragraph 3.21 (f) above would help to assure parents of children studying in schools which teach in Chinese that their child would not be placed at a disadvantage.

3.24 We RECOMMEND the further consideration of a proposal to remove the language medium indicator in the Hong Kong Certificate of Education by the relevant authority. In principle, we agree it is more appropriate for tertiary institutions and employers to base their assessment of a student's language proficiency on his language results rather than on whether he has taken his other subjects in either English or Chinese.

3.25 We consider the various measures proposed in paragraphs 3.19-3.24 above as integral parts of a 'levelling' exercise to remove any perceived difference between the standard of schools using different medium of instruction.

3.26 We wish to reiterate that the recommendations in this chapter may need to be refined or modified when the findings of the research studies referred to in paragraph 3.17 above are available.

(6) Putonghua

3.27 The Panel suggested that putonghua should continue to be an option for inclusion into the secondary school time-table or as an extra curricular activity at public expense. We note that the Education Department launched a pilot scheme on the teaching of putonghua in 20 primary

schools in September 1981 and that this has been extended to F 1 in 20 secondary schools in September 1984. In addition, there are about 68 other primary and secondary schools which teach putonghua as a subject, four large schools which use putonghua as the medium of instruction and 78 others which include putonghua as an extra-curricular activity. The Department has been very encouraged by the success of the pilot scheme so far. The pupils have shown a keen interest and the teaching materials specifically developed for Hong Kong schools have been found to be appropriate. However, there is a real problem in finding more qualified teachers to teach the subject.

3.28 With Hong Kong entering a new era, there will be a wider use of putonghua. We RECOMMEND that more schools should be encouraged to teach putonghua either during school hours or as an extra-curricular activity. It is noted that the Panel recommended this should be at public expense. We endorse this view and the financial implications will be explored. We feel that the shortage in qualified teachers to teach putonghua could be overcome by pre-service and increased in-service training.

(7) Summary of recommendations

3.29 In sum, we RECOMMEND that:

- (a) an additional graduate teacher of Chinese should be provided to every secondary school with 18 classes or more to improve the quality of Chinese teaching (paragraph 3.12);
- (b) expatriate lecturers of English should be recruited for the Colleges of Education and the Institute of Language in Education (paragraph 3.13);

- (c) secondary schools should be encouraged to employ locally available native English speakers with teaching qualifications to teach English (paragraph 3.13);
- (d) individual secondary school authorities should be encouraged to adopt Chinese as the medium of teaching (paragraph 3.18);
- (e) secondary schools which use Chinese as the instructing medium should be given additional resources to strengthen the teaching of English to avert any consequential drop in the standard of English due to reduced exposure (paragraphs 3.19 and 3.20);
- (f) a set of comprehensive and clear guidelines should be made available to assist individual secondary school authorities to decide on the language mode of instruction (paragraph 3.21 (a));
- (g) secondary schools should be provided with information on the English proficiency of their F 1 entrants to assist them in grouping their pupils (paragraph 3.21 (b));
- (h) teacher preparation for new and serving teachers should be modified to prepare for a wider use of Chinese in the classroom (paragraph 3.21 (c));

- (i) handbooks with technical terms in both languages for the various subjects taught in secondary schools should be compiled and issued to secondary school teachers (paragraph 3.21 (d));
- (j) the Chinese and English syllabuses should be redesigned and textbooks in both languages should be published so that they will be available to all schools regardless of the language mode chosen (paragraph 3.21 (e));
- (k) an end should be put to the distinction between Anglo-Chinese and Chinese middle schools by encouraging the removal of such references from the names of schools (paragraph 3.21 (f));
- (l) further consideration should be given to a proposal to remove the language medium indicator in the Hong Kong Certificate of Education by the relevant authority (paragraph 3.24); and
- (m) more schools should be encouraged to teach putonghua either during school hours or as an extra-curricular activity (paragraph 3.28).

(8) Financial implications

3.30 The estimated financial requirement for the language proposals contained in this chapter are shown below:

Estimated financial requirement for the language proposals

	(\$mn)							
	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>
(A) Non-Recurrent	7.9	8.1		0.2	0.9	0.1		
(B) Recurrent		28.2	77.4	98.2	99.0	102.9	105.6	106.0
Total	<u>7.9</u>	<u>36.3</u>	<u>77.4</u>	<u>98.4</u>	<u>99.9</u>	<u>103.0</u>	<u>105.6</u>	<u>106.0</u>
	—	—	—	—	—	—	—	—

- Notes:
- (1) All estimates are based on financial years, namely 1 April to 31 March, and on 1984 prices.
 - (2) It is assumed that the earliest implementation date for the language proposals is September 1988.
 - (3) It is assumed that of the existing and approved schools which would be in operation by September 1988, 258 (80%) would adopt Chinese as the medium of instruction, half in 1988 and the rest in 1989.
 - (4) For the 24 (Stages V-VI) schools which would be completed after September 1993, it is assumed that, they would all, on completion, adopt Chinese as the medium of instruction.
 - (5) The full cost of the language proposals will be reached in the financial year 1994/95 after all the new secondary schools proposed in Stages V-VI are completed.

CHAPTER IV TEACHER PREPARATION AND THE TEACHING SERVICE

(1) Introduction

4.1 The quality of education in Hong Kong hinges upon the availability of a teaching force which is adequate in numbers and quality. In this chapter, attention is focused on the preparation of non-graduate teachers. ⁽¹⁰⁾ We begin with an outline of the Panel's observations and an analysis of the public comments received. We next take stock of the existing position on teacher preparation and suggest ways which, we hope, would bring about qualitative and quantitative improvements. Finally, the need and desirability of establishing a Hong Kong Teaching Service is examined.

(2) Observations by the Visiting Panel ⁽¹¹⁾

4.2 The Panel looked upon teacher preparation as "the point of maximum leverage" for future policy. Pointing to the large number of teachers who are untrained or have inadequate training and the demand for more and better

⁽¹⁰⁾ Training for graduate teachers will be included in the next phase of the Commission's work.

⁽¹¹⁾ The Panel's observations are recorded in Section III Chapter 8 "The Teaching Service".

teachers arising from the further expansion in several sectors of education, it called for a simultaneous qualitative and quantitative strengthening of teacher training. It also examined the present structure of separate collegiate institutions and explored a range of alternative organisational arrangements.

4.3 The Panel further considered that there was a need to foster cohesion and a sense of corporate professional identity within the teaching force, and suggested that this be achieved by the establishment of a Hong Kong Teaching Service to which all practising education professionals would have to belong and with which aspiring teachers would have to be registered. The various employing authorities (for Government, subsidized and private independent schools from kindergartens through to F 7) would draw their staff from this Service which would lay down basic salaries and conditions of work for all professionals.

(3) Public comments

4.4 In sum all the views expressed agreed that more and better teachers are needed. The need for more teacher participation and involvement in school affairs was also endorsed. However, no consensus was recorded over the proposed Hong Kong Teaching Service. While the need to enhance professionalism and teacher effectiveness was unanimously supported, there was disagreement that a Hong Kong Teaching Service along the lines proposed by the Panel was the way to achieve this.

(4) Teacher preparation

4.5 At present, non-graduate teacher preparation is provided by the Education Department through the three general Colleges of Education - Northcote, Grantham, Sir Robert Black - and the Hong Kong Technical Teachers' College, which offer:

- (a) pre-service training for non-graduate students to become qualified teachers in primary schools, junior secondary schools, technical institutes, pre-vocational schools and vocational training centres: and
- (b) in-service training to enable unqualified teachers to acquire teaching qualifications and qualified teachers to upgrade their professional competence, including the provision of further training for teachers in special education schools and of special classes.

4.6 In addition, the Education Department offers refresher language training to serving language teachers through its Institute of Language in Education, and in-service courses of training to teachers at all levels through the Department's Advisory Inspectorate to further the professional competence of teachers and to update their knowledge of contemporary methods and approaches in teaching. School administration courses for heads and prospective heads of schools are also offered through its Training Unit.

4.7 One of the observations made by the Panel was a need to upgrade the quality of teacher preparation. Towards this end, we note that a number of measures have already taken place in recent years to improve the nature and rigour of teacher training courses, including:

- (a) lengthening the duration of some of the courses:
- (b) revising the structure of all courses to allow for a broader spectrum of activities and to provide students with a deeper understanding of the subjects being studied, particularly those they have elected to teach: and
- (c) introducing systematic retraining courses for primary and secondary teachers to update serving teachers on contemporary approaches to teaching and to promote knowledge of new concepts in curriculum development.

4.8 We also note that certain suggestions made by the Panel have been acted upon, including:

- (a) the preparation of an explicit rolling plan that sets definitive and achievable targets for types of needed educational personnel. Although this plan has been in existence for some time, it has been refined following more recent and detailed surveys on the existing teaching force:

- (b) the provision of details of in-service training opportunities available to all teachers:
- (c) the increasing involvement of serving teachers in teacher preparation, not only in supervising practice teachers but also as guest lecturers in training courses, in identifying in-service and pre-service training needs and in formulating means of meeting them:
- (d) the broadening of selection procedures so as to recruit college lecturing staff from both within and outside Government: and
- (e) the close co-operation between the Colleges of Education and the Institute of Language in Education in promoting language competence amongst student teachers.

4.9 In addition, we are informed that the Colleges have in recent years established an inter-college committee to co-ordinate teaching practice placements and that they will shortly host seminars with heads of schools to discuss the role the latter can play in helping the Colleges in their training role and the induction of new teachers.

Similar seminars will also be held by the Colleges and the Institute of Language in Education for heads of schools whose teachers have participated or will participate in their refresher courses, so that the teachers concerned can be given ample opportunity to make use of their knowledge and pass it on to their colleagues.

4.10 These efforts apart, we consider that there is still much to be done in view of the 1,500 untrained non-graduate teachers in the public-sector, not to mention 3,434 untrained non-graduate teachers in private schools as well as 4,508 kindergarten teachers awaiting training and 29,360 in-service graduate and non-graduate teachers who would need refresher training.⁽¹²⁾ To meet all these and other approved commitments, the enrolments of the Colleges in the coming years will have to be expanded significantly.

4.11 To cater for the projected expansion, very heavy reliance will be placed by the Colleges on rented, converted and borrowed premises. While this is a pragmatic solution for the near future, it is unsatisfactory as a permanent means of meeting the accommodation requirements of the Colleges. We accordingly RECOMMEND that a new college of education should be provided to strengthen both

⁽¹²⁾ Figures quoted refer to the position as at September 1983.

the quality and quantity of teacher preparation. In our view , such a college could:

- (a) incorporate the Hong Kong Technical Teachers' College, presently housed in temporary accommodation, and allow technical teacher education to be conducted in custom-built facilities;
- (b) enable the release by the three general Colleges of leased and borrowed accommodation;
- (c) facilitate each College specializing to a certain extent in its teacher education programmes;
- (d) facilitate the separation of the programmes of preparation for primary and secondary school teaching, thereby raising standards amongst College of Education graduates and improving the quality of teaching in the schools;
- (e) meet the need for further expansion which would arise if the proposals on expansion of secondary education and language teaching in the two preceding chapters were accepted; and

(f) allow the expansion of kindergarten training programmes if it is so decided. ⁽¹³⁾

4.12 In respect of the structure of the Colleges of Education, while we do not rule out the alternative organisational arrangements proposed by the Panel, such as amalgamation into one large single institution or integration/ federation/affiliation with an existing or new tertiary institute, our view is that the implications of any institutional change would have far-reaching ramifications and therefore merit the most careful and thorough consideration. We intend to cover this in the next phase of our work.

4.13 The proposed separation of the programmes of preparation for primary and secondary school teaching at paragraph 4.11 (d) above will improve the quality of teaching in primary schools. We are aware that there is a proposal currently in hand to introduce a Bachelor degree course in Primary Education to promote leadership at the primary school level. We endorse this proposal and RECOMMEND its early implementation. The proposal, which is in line with the Panel's observation and supported in principle by the University and Polytechnic Grants

⁽¹³⁾ A working party within Government will soon be making recommendations on whether a dedicated Training Institute for Kindergarten Teachers and Child Care Centre Workers should be set up or whether the training of these personnel should continue to be provided separately.

Committee, would improve and enrich this level of education as well as enhance the status of primary school personnel.

4.14 We are aware that the proposal would require additional financial resources and would have consequences for the structure and scale of primary school teachers. Given these considerations, we believe that a modest start, involving up to 30 experienced and able primary school heads and teachers as suggested by the Chinese University of Hong Kong, is the right approach although the possibility of expansion should be reviewed in the light of actual experience and requirements. Concurrently, consideration should also be given to the development of degree courses in other fields such as special education and secondary education, involving perhaps a tertiary institution.

4.15 The Panel was concerned about the isolation of teachers from the world outside school and suggested that opportunities for teachers to gain some experience in fields not connected with teaching should be provided. In our view, any "isolation" has probably been overstated. We do not consider the Panel's proposal as either necessary or practicable.

4.16 We do, however, RECOMMEND that teachers of craft and technical subjects should be encouraged to update themselves on the latest technological developments. We note that this is currently done through local and overseas industrial attachments for teachers in technical institutes and training centres, through participation by industrialists and professional bodies in the development of technical and vocational training, and through the constant updating of the curriculum of technical training programmes.

4.17 The Panel suggested that priority for entry to teacher education courses be given to mature age applicants who have experience of work other than teaching. We note that this is already being done to a not inconsiderable extent and RECOMMEND that this should continue and be extended as much as possible.

4.18 Teacher quality is also dependent on professional satisfaction and vocational commitment. Towards this end, the Panel considered that there should be an expansion of opportunities for the classroom teachers to play an active role in curriculum development. We fully agree and are pleased to note that there is considerable teacher participation in curriculum development, through:

- (a) secondments to the Education Department for one- two years to work on curriculum projects:
- (b) membership of the Education Department's Curriculum Development Committee which advises on curriculum development at all levels, plans and produces recommended syllabuses and ensures that textbooks and other related material are appropriate for the local syllabuses:
- (c) comments by teachers on new and revised syllabuses in the light of teaching experience: and

- (d) participation in the Hong Kong Examinations Authority to advise on the development of local public examinations which are themselves closely linked to the school curriculum.

4.19 We RECOMMEND that these efforts should continue and that more attention should be given to the development of secondary school curriculum. We also RECOMMEND a progressive decentralisation of curriculum development, with the Curriculum Development Committee acquiring greater autonomy and gradually re-orienting its activities towards supporting school-based curriculum determination and development. A move in this direction would need to be complemented by teachers taking a more active role in adapting curriculum material to meet the special needs of their students.

4.20 We further RECOMMEND that schools should be encouraged to develop more teacher participation in decision-making, initially in respect of professional matters (such as school organisation, assessment systems, planning of school activities, etc) and gradually extending to general administration.

4.21 In the interest of allowing schools more freedom and flexibility, we RECOMMEND that consideration should be given to the simplification of the codes of aid.

4.22 Besides participation in curriculum development and in school matters, professional satisfaction and vocational commitment on the part of teachers is also closely related to their terms of employment and to a

feeling of involvement in the development of the education system as a whole. In this connection, we note that there is a large number of teacher associations and groups which are concerned with conditions of service for teachers and educational matters. We also note that there are established procedures for these bodies to make representations and for Government to consult them on these matters.

4.23 Besides teacher associations, there are the school principals who are represented on the school councils and boards. They meet with the Director of Education on occasions and are specifically and formally consulted on proposals to change educational policy and conditions of employment affecting their schools. In addition, there is an established system of teacher consultation under which the Education Department maintains direct contact with teaching staff and obtains their views on current issues.

4.24 All the evidence we have studied suggest that these channels of communication and consultation, though diverse, are well-established and effectively made use of. Through them, teachers' views on the terms and conditions under which they work and the education being provided in our schools are reflected.

(5) A Hong Kong Teaching Service

4.25 The teaching service in Hong Kong is regulated in two ways, through:

- (a) the statutory provisions relating to teachers, specifically the stipulation that no person shall teach in a school unless he is a registered (i.e.

qualified) or permitted (i.e. unqualified but allowed to teach specific subjects in a particular school) teacher: and

- (b) Government regulations and codes of aid relating to the qualifications and conditions of service for teachers in the government and aided sectors.

4.26 The system of registration and permission ensures that the credentials of teachers are tightly controlled. However, because of the shortage of qualified teachers, a wide range of professional competence is accepted as illustrated by the existence of both registered and permitted teachers in the system. The range of professional qualifications which exists is reflected in a variety of salary levels and conditions of service.

4.27 In the government and aided sectors where tight central control is imposed either directly or through the codes of aid, there is a high level of comparability in the professional qualifications of teachers. Salaries of teachers in the two sectors are also similar although there are some variations over 'fringe benefits', specifically over retirement benefits which take the form of pension for government teachers and provident fund for teachers in the aided sector: and over medical, housing and education assistance which are enjoyed by government teachers but not their counterparts in the aided sector.

4.28 The real disparity, however, lies between teachers in the government/aided sector and those in the private sector, partly because of lower salaries and employment of

unqualified teachers in certain private independent schools, partly because of the non-availability of sufficient qualified teachers to enable private schools to employ fully qualified staff even if they were willing and had sufficient funds to do so, and partly because of the generally poorer facilities in private schools.

4.29 Given the present situation, we do not support the setting up of a Teaching Service along the lines postulated by the Panel either for the control of credentials as this is already the function of the Education Department, or for the determination of conditions of work as there is already considerable union-type activity through which teachers in the government/aided sector are able to influence the conditions of their employment.

4.30 A Teaching Service as proposed by the Panel is not the solution to overcome the problem of disparity in qualifications and conditions of service within the teaching force. While it might be possible, with enormous financial commitment, to achieve parity or near parity in conditions of service between teachers in the private sector and their counterparts in the government/aided sector, the disparity in professional preparation would remain for so long as the shortage of qualified teachers persist. Also, the disparity of standards arising from the generally poorer facilities in private schools would continue.

4.31 In our view, a high degree of comparability of professional qualifications and conditions of service throughout the teaching force in Hong Kong should be brought about by the progressive expansion of the fully aided sector to provide for the full demand of public

sector education. Such provision would, through the codes of aid, secure more uniform standards, while still leaving individual schools free to develop their own characters and traditions. The system would also permit the continued existence of a small private sector operating to high and acceptable standards.

4.32 While we do not recommend the setting up of a Hong Kong Teaching Service on the lines proposed by the Panel, we do RECOMMEND the fostering of a sense of professionalism by encouraging teachers, principals, school managements and sponsors to co-operate, through the co-ordination of the Education Department, in the writing of a 'code of practice' for the teaching profession. This code would prescribe ethical standards of conduct for teachers in the execution of their professional duties and all registered and permitted teachers would be expected to subscribe to it.

4.33 In addition, we RECOMMEND the implementation of the Panel's proposal of setting up regional teachers' centres to encourage exchange of experiences, to promote continuous professional development and enrichment, and to foster among teachers a greater sense of unity. In our view, these centres should provide meeting places and facilities for informal contact and discussion among teachers, information on current events of interest and relevance to their work, and reference materials. The pattern of activities which would take place therein would vary according to the needs of the teachers but are expected to include lectures, workshops and short seminars held after school, conferences during school holidays as well as exhibitions of new teaching materials and technical facilities, etc.

4.34 We RECOMMEND that initially the cost of setting up these centres and their recurrent running cost should be met by the Government. The centres should, however, be managed by the profession through possibly the establishment of a statutory board of management on which would be represented the main professional groups, including the teachers' unions and associations, school councils, sponsoring bodies and the Education Department. In due course, the possibility of these centres absorbing the existing subject-based teaching centres run by the Education Department as an extension of the Advisory Inspectorate should be examined.

4.35 In recognition of the innovative character of regional teachers' centres and in order to assess their viability, we RECOMMEND that Government should first set up one such centre and be responsible for its equipping and initial staffing. This centre should have an advisory management committee, including members of the teaching profession, which would progressively assume greater autonomy and responsibility for the running of the centre. This committee could, in fact, be the embryonic board of management which would eventually run all such centres.

(6) Summary of recommendations

4.36 In sum, we RECOMMEND that:

- (a) a new college of education should be provided to strengthen both the quality and quantity of teacher preparation (paragraph 4.11):

- (b) a proposal currently in hand to introduce a Bachelor degree in Primary Education to promote leadership at the primary school level should be implemented (paragraph 4.13):
- (c) teachers of craft and technical subjects should be encouraged to update themselves on the latest technological developments (paragraph 4.16):
- (d) Colleges of Education should continue to give priority for entry to teacher education courses to mature age applicants who have experience of work other than teaching (paragraph 4.17):
- (e) teachers should continue to play an active role in curriculum development and more attention should be given to the development of secondary school curriculum (paragraph 4.19)
- (f) curriculum development should be progressively decentralised (paragraph 4.19):
- (g) schools should be encouraged to develop more teacher participation in decision-making, initially in respect of professional matters and gradually extending to general administration (paragraph 4.20):

- (h) in the interest of allowing schools more freedom and flexibility, consideration should be given to the simplification of the codes of aid (paragraph 4.21):
- (i) teachers, principals, school managements and sponsors should be encouraged to co-operate, through the co-ordination of the Education Department, to produce a 'code of practice' for the teaching profession (paragraph 4.32): and
- (j) Government should first set up a regional teachers' centre to assess its viability. In the long term, regional teachers' centres should be set up with Government assistance and managed by the teaching profession (paragraphs 4.33-4.35).

(7) Financial implications

4.37 The estimated financial implications for the provision of an additional college of education and a regional teachers' centre are given below:

Estimated costs for the proposed college of education and the proposed regional teachers' centre

	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95
										(\$mn)
(A) <u>Non-Recurrent</u>										
1. Proposed college of education less savings		5	10	29.5	15.5					
(i) 1 secondary school		1.51	3.3	8.7	2.3					
(ii) rental for part of GCE annex					2.1	2.1	2.1	2.1	2.1	2.1
net		3.5	6.7	20.8	11.1	-2.1	-2.1	-2.1	-2.1	-2.1
2. Proposed regional teachers' centre	0.43	0.35								
Sub-total	0.43	3.85	6.7	20.8	11.1	-2.1	-2.1	-2.1	-2.1	-2.1
(B) <u>Recurrent</u>										
Proposed regional teachers' centre	0.27	0.47	0.49	0.53	0.53	0.54	0.56	0.57	0.59	0.60
(C) <u>Total</u>	0.70	4.32	7.39	20.61	11.63	-1.56	-1.54	-1.53	-1.51	-1.50

Notes: (1) All estimates are based on financial years, namely 1 April to 31 March, and on 1984 prices.

(2) In addition to the Sir Robert Black College of Education annex (i.e. the secondary school in Shatin) and part of the Grantham College of Education annex, the following premises would also be released upon the completion of the proposed college of education:

- (a) the former Morrison Hill Primary School (now Technical Teachers' College main building);
- (b) part of the former Victoria Technical School (now Technical Teachers' College annex);
- (c) part of the Morrison Hill Technical Institute which is on loan to Technical Teachers' College;
- (d) Bonham Road annex of Northcote College of Education.

It is not possible, at this stage, to quantify the amount of savings from giving up these four premises, which depends on the future alternative uses of these premises after they are given up by the Colleges of Education in 1989.

- (3) On the assumption that the center will start operation in September 1986, the implementation plan for the proposed regional teachers' centre is as follow:

April 1985	selection of staff
October 1985	appointment of staff
January 1986	formation of the Management Committee
September 1986	operation of the centre
September 1987	formation of the Advisory Committee



CHAPTER V OPEN EDUCATION

(1) Introduction

5.1 'Open education' in the popular sense refers to education which is conducted outside the formal institutional system. Unlike the latter which is related to particular age groups and educational levels, open education is non-age specific, covering basic literacy to tertiary level studies. It ranges from specialised vocational studies to general interest studies which may be recreation or leisure-oriented. The aims of open education are manifold and include remedial learning, providing second chance opportunities for obtaining qualifications, updating and keeping abreast of developments in fields where knowledge is expanding rapidly, and fulfilling individual personal development needs.

5.2 In terms of timing and the duration of studies, open education is less rigid than the formal school system. Open education is also flexible in its manner of delivery which may involve part-time attendance and studies in recognised institutions and/or distance learning modes. It is this flexibility that distinguishes open education from the traditional closed system and accounts for the removal of barriers to access.

5.3 In the time available, we have been unable to do justice to the many facets of open education, not the least of which are identification of the areas of need and their relative priorities as well as the management and operational arrangements. As these are important and complex issues, we intend to study them in depth in the next phase of our work. In this chapter, only one aspect

of open education is discussed, namely, the advisability of setting up an open university in Hong Kong.

(2) Observations by the Visiting Panel ⁽¹⁴⁾

5.4 From the outset the Panel was convinced that "access to education for all at any period of life... ought to be a basic tenet". It stressed the importance of providing second chances to people beyond school age to further their education either in the interest of expanding their mental horizons and intellectual potential or for the purpose of acquiring abilities beneficial to employment.

5.5 As for the proposal of an open university, although the Panel found the idea of a 'university without walls' using the mass media attractive, it acknowledged that "this does not seem likely in the foreseeable future mainly because of a questioning of what its viability and credibility would be."

(3) Public comments

5.6 Comments from a wide range of individuals and organisations were received, all stressing the importance and need for open education to supplement the formal school system and to provide greater diversification of educational opportunities. Strong support was also recorded regarding the open university proposal as a means to meet the demand for tertiary level education.

⁽¹⁴⁾ The Panel's observations are recorded in Section III Chapter 5 "Beyond the Schools" paragraph III. 5.4, and Section III Chapter 6 "Continuing Education".

(4) Open university

5.7 By open university, we take it to mean a dedicated institution which provides part-time higher education for adults in full-time employment or working in the home using distance learning techniques. It aims to provide opportunities of higher education for those who for any reason were not able to enter higher education immediately on leaving school. Degrees and other qualifications are offered by an open university to those who reach the required standards regardless of their previous qualifications. The university is 'open' in the sense that no educational qualification is required as a condition of entry to its courses. However, an open university is not 'open' in the sense that all are admitted.

5.8 In considering the question of an open university in Hong Kong, we were assisted in our task by studying a report recently completed by the University and Polytechnic Grants Committee (UPGC) on the subject. ⁽¹⁵⁾ In this report, the UPGC considered the advisability of setting up an open university modelled on the UK Open University style. The UK Open University is an institution devoted to providing university level courses to students likely to be in employment, be of a mature age and have entry qualifications which may indicate less rigorous achievement

⁽¹⁵⁾ The UPGC was commissioned by the Government to consider the feasibility of an open university in Hong Kong in July 1983. A copy of the precise remit of the study is at Annex (2). The UPGC completed its report in August 1984, a copy of which is at Annex (3).

than those following normal full-time courses. It relies on the high quality of its course materials for its success. Instruction is provided through specially written correspondence texts used in conjunction with television and radio programmes, summer and weekend schools and regionally organised tutorial and counselling system. Intermittent study is permitted so that a student once enrolled can withdraw temporarily and rejoin and subsequently acquire his degree through the accumulation of credit if necessary.

5.9 The UPGC considered that to replicate an institution such as the UK Open University in Hong Kong would require a scale of operation of around 70,000 - 100,000 students if it were to be viable. However, most of the necessary academic and technical expertise required to staff such an institution could not be found in Hong Kong and yet a knowledge of the needs of the territory in educational terms would be essential to success. The UK Open University, for example, not only has its own staff but relies heavily on the staff of polytechnics and universities for tutoring. With only two universities and two polytechnics in Hong Kong, the problem of securing tutoring resources would be difficult to resolve.

5.10 Apart from manpower considerations, the UPGC pointed out that there would be a need for an open university in Hong Kong to teach both in Chinese and English. The cost of this bilingual preparation of teaching material would be excessively expensive and yet it was unlikely that the material could be sold abroad to offset part of the production cost.

5.11 In addition to these factors inhibiting the development of a UK Open University-style institution, UPGC considered that most students in Hong Kong would not be

able to find an appropriate study environment at home. This would mean that a network of study centres would have to be provided and it was unlikely that tutoring by telephone links could be established without a heavy investment.

5.12 One of the main issues for consideration is clearly cost-effectiveness. For the reasons given in paragraphs 5.9-5.11 above, the UPGC did not favour the establishment of an open university in Hong Kong. We share this view and accordingly DO NOT RECOMMEND the provision of an open university. We are, however, very much aware of the demand for more tertiary-level opportunities and consider that alternative forms of attendance should be developed to allow for an expansion of educational opportunities at the tertiary level.

(5) Open education

5.13 Whilst the UPGC did not recommend the provision of a dedicated institution to serve as an open university, it argued for a very high priority to be given as soon as possible to the development of open education. By this the UPGC included distance learning by correspondence courses combined as appropriate with radio/television programmes, part-time attendance at existing recognised institutions, external degree and diploma programmes. The UPGC further proposed that the development should be based on all the existing tertiary institutions, with itself assuming a co-ordinating role to eradicate gross overlap of effort and to facilitate collaboration where required.

5.14 As stated in paragraph 5.3 above, we shall be examining in the next phase of our work the types of open education which are most useful to and sought after by the community as well as the different learning methods best suited to learner needs and circumstances. We shall also be giving detailed consideration to the organisation and institutional arrangements, taking into account the present proliferation of public bodies which are actively involved in the provision of open education at different levels and to different target groups. The possibility of setting up a co-ordinating body for open education will be studied.

5.15 Suffice to say at this stage that we recognise the importance of open education in Hong Kong against a background of rapid technological and social changes. We believe that open education and the use of open learning methods and new information technologies would remove barriers to the accessibility of education and would allow the extension of education and training opportunities to a much wider section of the population.

(6) Summary of recommendations

5.16 Whilst we endorse UPGC's recommendation that an open university should not be established in Hong Kong, we shall, in the next phase of our work, examine the development of open education at all levels.

CHAPTER VI EDUCATIONAL RESEARCH

(1) Introduction

6.1 The fifth critical area which the Panel has identified as having a bearing on the development of education in Hong Kong is educational research. As with other chapters, this chapter also begins with an outline of the Panel's observations and a summary of the public comments received. This is followed by a description of the existing educational research capability in Hong Kong and our views on the subject.

(2) Observations by the Visiting Panel ⁽¹⁶⁾

6.2 The Panel was concerned about the "little evidence of research and development in education" and urged the "need for in-depth research into curriculum development, teaching practices and the evaluation of pupil achievement." It considered that "there is a need for more research capability to back up what is attempted." It was of the view that the Education Department's resources (human, physical and financial) in this area-including the Advisory Inspectorate and the staff of the curriculum development section-were insufficient for the task to be accomplished.

⁽¹⁶⁾ The Panel's observations are recorded in Section II "Policy and Planning" paragraphs II.33 and II.34, and Section III Chapter 4 "The Schools" paragraph III.4.30.

(3) Public comments

6.3 There was a general consensus on the need for in-depth research into curriculum development, teaching practices and the evaluation of pupil achievement. Some representations further maintained that research carried out in Hong Kong would probably be considered more relevant than research carried out overseas. Views on basic research aimed primarily at the advancement of knowledge in specialised fields were also expressed. As these fall outside the ambit of educational research, we have not included them in our deliberations.

(4) Present position

6.4 At present, systematic educational research is largely undertaken by the following bodies:

- (a) Educational Research Establishment of the Education Department;
- (b) Department of Education of the Faculty of Education (formally known as the School of Education) of the University of Hong Kong;
- (c) School of Education of the Chinese University of Hong Kong; and
- (d) Hong Kong Polytechnic.

6.5 The Educational Research Establishment (ERE) conducts general educational research work and monitors standards at all levels of education within the school

system. The range of its involvement is extensive, including assessment of the standards of attainment in basic school subjects by pupils at different levels, language research, curriculum development, the use of scaling tests as a means of selection, and provision of special education services. This can be seen from the list of projects currently undertaken and scheduled to be conducted by ERE at Annex (4). The ERE has also lined up a number of research projects at Annex (5) which it intends to conduct as and when time and resources permit.

6.6 The Faculty of Education of the University of Hong Kong, the School of Education of the Chinese University of Hong Kong and the Hong Kong Polytechnic also undertake research studies on education , including inquiries in language studies and teaching, curricular design and learning process, educational thoughts and systems. Some of the major projects undertaken by the two universities and the Hong Kong Polytechnic are listed in Annex (6).

6.7 In addition, the City Polytechnic is setting up its own research unit. The Institute of Language in Education (ILE) is planning a programme of research and publication related to language learning and teaching in Hong Kong.

(5) The way forward

6.8 As can be seen from the above paragraphs and Annexes (4) to (6), there is already a standing capability in Hong Kong to conduct research and a considerable amount of educational research is presently being undertaken. We RECOMMEND that the efforts of the ERE, the universities, the polytechnics and the ILE should be sustained. On our part, we shall, of course, be monitoring the work of these bodies. In addition, we intend to initiate further

educational research as appropriate for the development of education in Hong Kong, particularly in the field of curriculum development. We RECOMMEND that all educational research activities should be co-ordinated with the planning and formulation of educational policies.

6.9 In cognizance of the Panel's observation that the resources of the ERE are inadequate, a comment which we endorse, the two universities and the polytechnics have been approached on the possibility of their undertaking some of the research studies identified in Annex (5). The research capacity of these institutions was the subject of a recent study. In February 1983, the University and Polytechnic Grants Committee appointed a Research Working Party under Lord Flowers to consider the extent and the means by which basic research for academic purposes and selected research projects of special significance for Hong Kong might be supported in Hong Kong's institutions of higher education. The recommendations of the Working Party, including the provision of additional resources to strengthen the quality and quantity of research, are being considered by the Government. If accepted, they would increase the institutions' capacity to undertake research and thus improve the prospect of additional educational research being undertaken.

(6) Summary of recommendations

6.10 In sum, we RECOMMEND that:

- (a) the educational research efforts of the ERE, the two universities, the two polytechnics and the Institute of Language in Education should be sustained (paragraph 6.8); and

- (b) all educational research activities should be co-ordinated with the planning and formulation of educational policies (paragraph 6.8).



CHAPTER VII FINANCING OF EDUCATION

(1) Introduction

7.1 We recognise that matters relating to the financing of education are among the most important and far-reaching areas of concern in the field of education. This is so because of the magnitude of funds involved. As illustrated in Table 4 attached, expenditure in 1984-85 amounts to some \$7,070 million, which is about 16.1% of the total estimated public expenditure and 2.9% of the estimated gross domestic product. We are aware that funds appropriated for the education service have been increasing steadily, from \$3,382 million in 1980-81 to \$4,172 million in 1981-82 (representing an increase of 23.4%), to \$5,105 million in 1982-83 (representing an increase of 22.4%), to \$5,988 million in 1983-84 (representing an increase of 17.3%), and to an estimated \$7,070 million in the current financial year (representing an increase of 18.1%)⁽¹⁷⁾.

7.2 The Panel did not, however, address the issue of financing of education. It merely stated in a passing reference in the penultimate paragraph of its report that it is of major significance and that it should be "scheduled for study in an ongoing programme of policy analysis of education issues". We accept this view.

⁽¹⁷⁾ The figures for the financial years 1980-81 to 1983-84 are quoted from Appendix VI of the "Estimates for the year ending 31st March 1985 Volume 2, Revenue, Funds and Statistical Appendices".

7.3 The issues which require to be addressed, such as the balance between public and private expenditure on education, rates of return on educational investment and the balance of expenditure on different sectors of education, are matters of considerable complexity. However, time constraints have not permitted us to make recommendations on them in this report. They are, therefore, scheduled for study in the manner suggested by the Panel, In this chapter, we have concentrated on one aspect of the financing of education, namely, the order of costs of our recommendations contained in this Report.

(2) Financial implications of recommendations in this Report

7.4 In our terms of reference we are required to formulate education policy and "recommend priorities for implementation having regard to the resources available". "It would clearly be futile to make recommendations which could not be implemented because of lack of resources. Where there is a scarcity of resources, it would obviously be necessary to advise on priorities for implementation. Accordingly, in Tables 1 to 7 at the end of this chapter, we have attempted to identify the total financial implications of the recommendations contained in the preceding chapters and to relate these to the expenditure which it is estimated will be required to implement existing policies and approved activities in the education field in the period up to and including 1991/92. As can be seen from Table 5 which summarises the financial implications of our recommendations, the major financial impact arises from our proposals relating to the future of the JSEA (capital and recurrent expenditure) and from our proposals to positively discriminate in favour of those schools which choose to use Chinese as the medium of instruction (recurrent expenditure only).

7.5 We recognise the difficulty of making accurate forecasts on the availability of resources, as this is dependent upon the state of the economy. Nevertheless, in view of the very strong educational and social reasons advanced, we feel that the additional financial requirements to implement the recommendations contained in this Report are justified and acceptable. We consider that these recommendations, if agreed to by the Government, should be implemented in parallel.

7.6 In the next phase of our work, we shall be reviewing the modes of financing of education, including the financing of the suggested improvements contained in this Report to determine all possible options by which these and any future recommendations might be financed.

7.7 We wish to stress that the figures quoted in this chapter are rough indicative costs only, calculated on the basis of 1984 prices. They will certainly need to be up dated as time goes by and as new information becomes available.

(3) Recommendation

7.8 Given the priority accorded to the issues discussed in this Report by the Panel and in view of the very strong educational and social reasons advanced for the various recommendations contained in this Report, we RECOMMEND that the indicated order of costs for their implementation should be accepted.

Table 1

Estimated Total Financial Requirements for Approved Activities under Education Department

		(\$mn)							
(A) <u>Recurrent</u>		<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
1.	KG	7	10	12	14	18	21	26	32
2.	Primary								
	(a) Govt	153	160	163	165	167	170	173	176
	(b) aided	1815	1884	1955	2040	2141	2197	2252	2333
3.	Secondary								
	(a) Govt	260	275	287	297	305	310	315	320
	(b) aided	1639	1777	1916	2055	2171	2196	2222	2235
	(c) private	200	203	201	1990	175	175	175	175
4.	Others								
	(a) Special	144	157	169	187	211	211	211	211
	(b) Teacher	70	81	89	93	95	96	98	99
	(c) Others	239	277	307	327	343	349	355	361
	Sub-total	<u>4527</u>	<u>4824</u>	<u>5099</u>	<u>5368</u>	<u>5626</u>	<u>5725</u>	<u>5827</u>	<u>5942</u>
		—	—	—	—	—	—	—	—
		(\$mn)							
(B) <u>Non-Recurrent</u>		<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
1.	Primary	208	151	80	46	35	32	32	32
2.	Secondary	242	327	214	301	110	55	48	48
3.	Others	24	48	49	48	38	38	38	38
	Sub-total	<u>474</u>	<u>526</u>	<u>343</u>	<u>395</u>	<u>183</u>	<u>125</u>	<u>118</u>	<u>118</u>
		—	—	—	—	—	—	—	—
(C) <u>Total</u>		<u>5001</u>	<u>5350</u>	<u>5442</u>	<u>5763</u>	<u>5809</u>	<u>5850</u>	<u>5945</u>	<u>6060</u>
		—	—	—	—	—	—	—	—

Notes: (A) Recurrent

- (1) All estimates are based on financial years, namely 1 April to 31 March, and on 1984 prices.
- (2) The estimates up to 1988/89 are based on the current Five Year Forecast of Expenditure.

Table 1(cont'd)

- (3) For expenditures after 1988/89, allowance has been made for the increase in expenditure arising from population growth (in respect of aided primaries) and increase in the number of operating classes in developing schools (in respect of aided secondaries).
- (4) For expenditure items where no growth in the level of activities is anticipated, allowance has been made, where appropriate, for incremental creep, by a factor of 1.71 %.
- (5) Recurrent expenditure arising from additional classes from the II schools which are now needed under Stage V (Phase I) is included.
- (6) Item 4(c) refer to activities such as Education Television, post-secondary education, adult education and Education Department.

(B) Non-Recurrent

- (1) All estimates are based on financial years, namely 1 April to 31 March, and on 1984 prices.
- (2) Capital costs in respect of the 11 schools under Stage V (Phase I) of the building programme are included at an estimated cost of \$15.8 mn, per school.

September 1984

Table 2

Estimated Total Financial Requirements for Approved Activities
under Vocational Training
Council and Technical Education and Industrial Training Department

(A) Recurrent

	(Note 1)	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
									(\$mn)
1. Technical Institutes									
(a) Day-time Operation		164	178	243	282	304	320	320	320
(b) Evening-only Operation (Note 2)		23	27	31	37	41	41	41	41
2. Industrial Training Centres									
(a) Day-time Operation (Note 3)		-	108	111	117	118	118	118	118
(b) Evening-only Operation		-	1	1	1	1	1	1	1
3. Vocational Training for the Disabled									
(a) Government Centres		9	10	11	13	19	22	23	23
(b) Subvented Centres		6	7	7	7	8	8	8	8
4. Industrial Training Boards and General Committees		17	18	18	19	19	19	19	19
Sub-total		<u>219</u>	<u>349</u>	<u>422</u>	<u>476</u>	<u>510</u>	<u>529</u>	<u>530</u>	<u>530</u>
		—	—	—	—	—	—	—	—

(B) Non-Recurrent

	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
								(\$mn)
1. Technical Institutes	23	144	174	64	10	10	10	10
2. Industrial Training Centres	158	29	7	2	2	2	2	2
3. Centres for the Disabled	3	16	35	21	6	-	-	-
Sub-total	<u>184</u>	<u>189</u>	<u>216</u>	<u>87</u>	<u>18</u>	<u>12</u>	<u>12</u>	<u>12</u>
	—	—	—	—	—	—	—	—

(C) Total

	<u>403</u>	<u>538</u>	<u>638</u>	<u>563</u>	<u>528</u>	<u>541</u>	<u>542</u>	<u>542</u>
	—	—	—	—	—	—	—	—

Table 2 (cont'd)

- Notes: (1) Recurrent expenditure is based on academic years, namely, 1 September to 31 August but non-recurrent is based on financial years, namely, 1 April to 31 March. All estimates are based on 1984 prices.
- (2) Estimates are mainly part-time staff costs and rent for outside centres.
- (3) Estimates include also expenditure for the Engineering Graduates Training Scheme.
- (4) For the financial year up to 1988/89, the figures are based on the VTC estimates/five-year forecast. For the year 1989/90 and beyond, the figures are rough estimates only.

September 1984

Table 3

Estimated Total Financial Requirements for Approved Activities in respect of Higher Education

(A) Recurrent

	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
								(\$mn)
1. Universities								
(a) Recurrent grants	790	837	878	918	949	982	1015	1044
(b) Student grants	18	22	27	32	36	41	47	52
2. Polytechnics and Baptist College								
(a) Recurrent grants	593	646	716	730	756	777	791	805
(b) Student grants	15	18	24	30	36	42	48	56
Sub-total	<u>1416</u>	<u>1523</u>	<u>1645</u>	<u>1710</u>	<u>1777</u>	<u>1842</u>	<u>1901</u>	<u>1957</u>
	—	—	—	—	—	—	—	—

(B) Non-Recurrent

	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
								(\$mn)
1. Universities	187	201	133	168	179	143	57	49
2. Polytechnics and Baptist College	63	159	207	327	340	30	3	-
Sub-total	<u>250</u>	<u>360</u>	<u>340</u>	<u>495</u>	<u>519</u>	<u>173</u>	<u>60</u>	<u>49</u>
	—	—	—	—	—	—	—	—

(C) <u>Total</u>	1666	1883	1985	2205	2296	2015	1961	2006
	—	—	—	—	—	—	—	—

Notes: (1) Estimates are calculated by reference to academic years, namely 1 July to 31 June, and are based on 1984 prices.

(2) 1984 salary revision included (for 3 months of 1983-84).

(3) In the absence of the institutions' academic proposals for 1988-89 to 1991-92 nor the costed proposals for 1985-86 to 1991-92, figures for 1985-86 and beyond are no more than a rough and ready "guestimate".

Table 3 (cont'd)

- (4) Estimated requirement for the third university and open education is excluded and no separate provision is allowed for research.
- (5) The estimated requirement for the City Polytechnic is based on the maximum full-time equivalent student number of 8900.
- (6) Student grants have been worked out according to fee levels which have been assumed to increase at the annual rates of \$600 for degree courses and \$500 for non-degree courses.
- (7) All estimates are calculated on the basis of the 1981 population projections and do not allow for the reduction in the latest available population projections.
- (8) Estimated requirements for the triennium 1985-88 do not reflect cash limits recently imposed for this period nor the revised population projection figures which became available after June 1984.

June 1984

Table 4

Summary of Total Estimated Financial Requirements for Approved Activities

(A) Recurrent

	(\$mn)							
	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
1. Kindergarten	7	10	12	14	18	21	26	32
2. Primary	1968	2044	2118	2205	2308	2367	2425	2509
3. Secondary	2099	2255	2404	2542	2651	2681	2712	2730
4. Technical ed and Industrial training	219	349	422	476	510	529	530	530
5. Higher	1416	1523	1645	1710	1777	1842	1901	1957
6. Others	453	515	565	607	649	656	664	671
Sub-total	<u>6162</u>	<u>6696</u>	<u>7166</u>	<u>7554</u>	<u>7913</u>	<u>8096</u>	<u>8258</u>	<u>8429</u>
	—	—	—	—	—	—	—	—

(B) Non-Recurrent

	(\$mn)							
	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
1. Primary	208	151	80	46	35	32	32	32
2. Secondary	242	327	214	301	110	55	48	48
3. Technical ed and Industrial training	184	189	216	87	18	12	12	12
4. Higher	250	360	340	495	519	173	60	49
5. Others	24	48	49	48	38	38	38	38
Sub-total	<u>908</u>	<u>1075</u>	<u>899</u>	<u>977</u>	<u>720</u>	<u>310</u>	<u>190</u>	<u>179</u>
	—	—	—	—	—	—	—	—

(C) Total

	<u>7070</u>	<u>7771</u>	<u>8065</u>	<u>8531</u>	<u>8633</u>	<u>8406</u>	<u>8448</u>	<u>8608</u>
	—	—	—	—	—	—	—	—

Note: All estimates are based on 1984 prices.

September 1984

Table 5

Estimated Total Financial Requirements arising from the
Commission's Proposals adjusted to reflect the latest available Population Projections

(I) Estimated total financial requirements arising from the Commission's proposals

(A) Recurrent

	(\$mn)										
	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>
1. Language proposals					28.2	77.4	98.2	99.0	102.9	105.6	106.0
2. Teachers' centre	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
3. JSEA						34	81	121	163	198	223
Sub-total	<u>0.3</u>	<u>0.5</u>	<u>0.5</u>	<u>0.5</u>	<u>28.7</u>	<u>111.9</u>	<u>179.7</u>	<u>220.6</u>	<u>266.5</u>	<u>304.2</u>	<u>329.6</u>
	—	—	—	—	—	—	—	—	—	—	—

(B) Non-Recurrent

	(\$mn)										
	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>
1. Language proposals				7.9	8.1		0.2	0.9	0.1		
2. Teacher training			3.5	6.7	20.8	11.1	-2.1	-2.1	-2.1	-2.1	-2.1
3. Teachers' Centre	0.4	0.4									
4. JSEA			3	36	149	116	91	70	40	11	1
Sub-total	<u>0.4</u>	<u>6.9</u>	<u>50.6</u>	<u>177.9</u>	<u>127.1</u>	<u>89.1</u>	<u>68.8</u>	<u>38</u>	<u>8.9</u>	<u>-1.1</u>	
(C) Total	<u>0.7</u>	<u>7.4</u>	<u>51.1</u>	<u>206.6</u>	<u>239.0</u>	<u>268.8</u>	<u>289.4</u>	<u>304.5</u>	<u>313.1</u>	<u>328.5</u>	
	—	—	—	—	—	—	—	—	—	—	—

Note: All estimates are based on 1984 prices.

Table 5 (cont'd)

(II) 'Saving' under Stage V (Phase I) arising from the revised population projections

	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>	<u>92/93</u>	<u>93/94</u>	<u>94/95</u>	(\$mn)
(A) Recurrent						3	21	64	113	148	164	
(B) Non-Recurrent			1	14	49	107	136	75	13			
Total			<u>1</u>	<u>14</u>	<u>49</u>	<u>110</u>	<u>157</u>	<u>139</u>	<u>126</u>	<u>148</u>	<u>164</u>	
			—	—	—	—	—	—	—	—	—	

(III) Estimated total financial requirements arising from the Commission's proposals adjusted to reflect the 'saving' under Stage V (Phase I) arising from the revised population projections (Item (I) minus item (II))

(A) Recurrent	0.3	0.5	0.5	28.7	108.9	158.7	156.6	153.5	156.2	165.6	
(B) Non-Recurrent	0.4	5.9	36.6	128.9	20.1	-46.9	-6.2	25	8.9	-1.1	
Total	<u>0.7</u>	<u>6.4</u>	<u>37.1</u>	<u>157.6</u>	<u>129.0</u>	<u>111.8</u>	<u>150.4</u>	<u>178.5</u>	<u>165.1</u>	<u>164.5</u>	
	—	—	—	—	—	—	—	—	—	—	

Note: All estimates are based on financial years, namely 1 April to 31 March, and on 1984 prices.

September 1984

Table 6

Estimated Total Financial Requirements for Approved and Proposed Activities

(A) Recurrent

	(\$mn)							
	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
1. Kindergarten	7	10	12	14	18	21	26	32
2. Primary	1968	2044	2118	2205	2308	2367	2425	2509
3. Secondary	2099	2255	2404	2542	2679	2792	2891	2950
4. Technical and Industrial	219	349	422	476	510	529	530	530
5. Higher	1416	1523	1645	1710	1777	1842	1901	1957
6. Others	453	515	566	608	650	657	665	672
Sub-total	<u>6162</u>	<u>6696</u>	<u>7167</u>	<u>7555</u>	<u>7942</u>	<u>8208</u>	<u>8438</u>	<u>8650</u>
	—	—	—	—	—	—	—	—

(B) Non-Recurrent

	(\$mn)							
	<u>84/85</u>	<u>85/86</u>	<u>86/87</u>	<u>87/88</u>	<u>88/89</u>	<u>89/90</u>	<u>90/91</u>	<u>91/92</u>
1. Primary	208	151	80	46	35	32	32	32
2. Secondary	242	327	217	345	267	171	139	119
3. Technical and Industrial	184	189	216	87	18	12	30	109
4. Higher	250	360	340	495	519	173	60	49
5. Others	24	48	53	55	59	49	36	37
Sub-total	<u>908</u>	<u>1075</u>	<u>906</u>	<u>1028</u>	<u>898</u>	<u>437</u>	<u>279</u>	<u>248</u>
	—	—	—	—	—	—	—	—

(C) Total

	<u>7070</u>	<u>7771</u>	<u>8073</u>	<u>8583</u>	<u>8840</u>	<u>8645</u>	<u>8717</u>	<u>8898</u>
	—	—	—	—	—	—	—	—

Note: All estimates are based on 1984 prices.

September 1984

Table 7

Comparison of the Estimated Total Financial Requirements for
Approved Activities with those for Approved and Proposed Activities

(A) Recurrent

	(\$ million)				
	<u>Approved</u>	<u>Approved and Proposed</u>	<u>Difference</u>	<u>%</u>	<u>(Difference Approved)</u>
1984-85	6162	6162	-	-	
1985-86	6696	6696	-	-	
1986-87	7166	7167	+1	+0.01	
1987-88	7554	7555	+1	+0.01	
1988-89	7913	7942	+29	+0.4	
1989-90	8096	8208	+112	+1.4	
1990-91	8258	8438	+180	+2.2	
1991-92	8429	8650	+221	+2.6	

(B) Non-Recurrent

	(\$ million)				
	<u>Approved</u>	<u>Approved and Proposed</u>	<u>Difference</u>	<u>%</u>	<u>(Difference Approved)</u>
1984-85	908	908	-	-	
1985-86	1075	1075	-	-	
1986-87	899	906	+7	+0.8	
1987-88	977	1028	+51	+5.2	
1988-89	720	898	+178	+24.7	
1989-90	310	437	+127	+41.0	
1990-91	190	279	+89	+46.8	
1991-92	179	248	+69	+38.5	

(C) Total

	(\$ million)				
	<u>Approved</u>	<u>Approved and Proposed</u>	<u>Difference</u>	<u>%</u>	<u>(Difference Approved)</u>
1984-85	7070	7070	-	-	
1985-86	7771	7771	-	-	
1986-87	8065	8073	+8	+0.1	
1987-88	8531	8583	+52	+0.6	
1988-89	8633	8840	+207	+2.4	
1989-90	8406	8645	+239	+2.8	
1990-91	8448	8717	+269	+3.2	
1991-92	8608	8898	+290	+3.4	

Table 7 (cont'd)

- Notes:
- (1) All estimates are based on 1984 prices.
 - (2) The full recurrent cost of the proposed activities will only be reached in 1997-98 when all the new secondary schools in Stages V (Phase II) and VI are operated to full capacity.
 - (3) The additional recurrent cost of the proposed activities in 1997-98 will be \$349 million, representing about 3.2% increase on the total estimated recurrent expenditure for approved activities in that year.

September 1984

CHAPTER VIII SUMMARY OF RECOMMENDATIONS

For ease of reference, and to give some idea of the range and scope of our recommendations, we include a complete listing of them, in the order in which they appear:

Chapter II - Junior Secondary Education Assessment System

- (1) The provision of subsidised post-F 3 education opportunities, comprising vocational education in the form of one-year full-time basic craft courses in technical institutes and training centres as well as general education in the form of F 4 places in secondary schools, should be expanded (paragraph 2.13).
- (2) For the purpose of educational planning, a total annual provision of 7,600 one-year full-time basic craft places should be allowed for from about 1989-90 onwards (paragraph 2.16).
- (3) If the proposal by the Vocational Training Council to run one-year full-time bridging courses to technician studies for about 600 selected graduates of full-time craft courses in technical institutes is accepted by the Government, an additional technical institute should be provided by, say, 1989 to meet the consequential additional number of full-time basic craft places required to maintain the output of craft trainees required by industry (paragraph 2.19).

- (4) A 5% rate of provision for repetition should be adopted for the purpose of planning the secondary school requirement and 10 new schools should be built under a Stage V (Phase II) of the Secondary Schools Building Programme (paragraphs 2.24 and 2.25).
- (5) The class pattern of existing pre-vocational schools should be modified from 77722 to 66644 and four new pre-vocational schools should be provided under a Stage VI of the building programme to accommodate the displaced lower forms (paragraph 2.27 (a) and (b)).
- (6) F 4-5 places in satisfactory private independent schools should be bought and the consequential reduction in F 1-3 bought places should be compensated by the provision of 10 new schools under a Stage VI of the building programme (paragraph 2.27 (c) and (d)).
- (7) For planning purpose, the 24 schools proposed under Stage V (Phase II) and Stage VI of the building programme should be provided over the period 1989 to 1993 (paragraph 2.29).
- (8) The JSEA should be phased out in 1991 subject to the acceptance and implementation of the recommendations at items (1) to (7) above and to the formulation of new means of placement to be devised by the Education Department (paragraphs 2.33 and 2.35).
- (9) The curriculum for secondary education should continue to be revised and the examination system should be reviewed and revised as appropriate in parallel with the provision of more subsidised post- F 3 places to achieve the phasing out of the JSEA (paragraph 2.36).

- (10) The Education Department should now conduct the deferred formal operational review of the JSEA (paragraph 2.37).

Chapter III - Language in Education

- (11) An additional graduate teacher of Chinese should be provided to every secondary school with 18 classes or more to improve the quality of Chinese teaching (paragraph 3.12).
- (12) Expatriate lecturers of English should be recruited for the Colleges of Education and the Institute of Language in Education (paragraph 3.13).
- (13) Secondary schools should be encouraged to employ locally available native English speakers with teaching qualifications to teach English (paragraph 3.13).
- (14) Individual secondary school authorities should be encouraged to adopt Chinese as the medium of teaching (paragraph 3.18).
- (15) Secondary schools which use Chinese as the instructing medium should be given additional resources to strengthen the teaching of English to avert any consequential drop in the standard of English due to reduced exposure (paragraphs 3.19 - 3.20).
- (16) A set of comprehensive and clear guidelines should be made available to assist individual secondary school authorities to decide on the language mode of instruction (paragraph 3.21 (a)).

- (17) Secondary schools should be provided with information on the English proficiency of their F I entrants to assist them in grouping their pupils (paragraph 3.21(b)).
- (18) Teacher preparation for new and serving teachers should be modified to prepare for a wider use of Chinese in the classroom (paragraph 3.21(c)).
- (19) Handbooks with technical terms in both languages for the various subjects taught in secondary schools should be compiled and issued to secondary school teachers (paragraph 3.21(d)).
- (20) The Chinese and English syllabuses should be redesigned and textbooks in both languages should be published so that they will be available to all schools regardless of the language mode chosen (paragraph 3.21(e)).
- (21) An end should be put to the distinction between Anglo-Chinese and Chinese middle schools by encouraging the removal of such references from the names of schools (paragraph 3.21(f)).
- (22) Further consideration should be given to a proposal to remove the language medium indicator in the Hong Kong Certificate of Education by the relevant authority (paragraph 3.24).
- (23) More schools should be encouraged to teach putonghua either during school hours or as an extra-curricular activity (paragraph 3.27).

Chapter IV Teacher Preparation and the Teaching Service

- (24) A new college of education should be provided to strengthen both the quality and quantity of teacher preparation (paragraph 4.11).
- (25) A proposal currently in hand to introduce a Bachelor degree in Primary Education to promote leadership at the primary school level should be implemented (paragraph 4.13).
- (26) Teachers of craft and technical subjects should be encouraged to update themselves on the latest technological developments (paragraph 4.16).
- (27) Colleges of Education should continue to give priority for entry to teacher education courses to mature age applicants who have experience of work other than teaching (paragraph 4.17).
- (28) Teachers should continue to play an active role in curriculum development and more attention should be given to secondary school curriculum (paragraph 4.19).
- (29) Curriculum development should be progressively decentralised (paragraph 4.19).
- (30) Schools should be encouraged to develop more teacher participation in decision-making, initially in respect of professional matters and gradually extending to general administration (paragraph 4.20).
- (31) In the interest of allowing schools more freedom and flexibility, consideration should be given to the simplification of the codes of aid (paragraph 4.21).

- (32) Teachers, principals, school managements and sponsor should be encouraged to co-operate, through the co-ordination of the Education Department, to produce a 'code of practice ' for the teaching profession (paragraph 4.32).
- (33) Government should first set up a regional teachers' centre to assess its viability. In the long-term, regional teachers' centres should be set up with Government assistance and managed by the teaching profession (paragraphs 4.33 - 4.35).

Chapter V - Open Education

- (34) Whilst we endorse UPGC's recommendation that an open university should not be established in Hong Kong, we shall, in the next phase of our work, examine the development of open education at all levels (paragraph 5.16).

Chapter VI - Educational Research

- (35) The educational research efforts of the Educational Research Establishment of the Education Department the two universities, the two polytechnics and the Institute of Language in Education should be sustained (paragraph 6.8).
- (36) All educational research activities should be co-ordinated with the planning and formulation of educational policies (paragraph 6.8).

Chapter VII - Financing of Education

- (37) Given the priority accorded to the issues discussed in this Report by the Panel and in view of the very strong educational and social reasons advanced for the various recommendations contained in this Report, the indicated order of costs for their implementation should be accepted (paragraph 7.8).
-

CHAPTER IX TASKS AHEAD

9.1 As stated in the opening chapter of this Report, we believe education must be planned as a flexible system in conjunction with changing circumstances and requirements. Education policy must be subject to a continuous process of review and be receptive to new ideas. Accordingly, we intend to keep a close watch on the recommendations in this Report.

9.2 In the next phase of our work, we shall consider the other issues dealt with by the Panel which is not covered in this Report, including:

- (a) Strengthening curriculum planning and development, including promoting civic education;
- (b) Kindergartens;
- (c) The role of the Hong Kong Examinations Authority;
- (d) Sixth Form education;
- (e) Development of tertiary education; and
- (f) Special education.

9.3 In addition, we would like to expand further on some of the issues touched upon in this report, including :

- (a) Teacher preparation (specifically in respect of graduate teacher preparation, organisation of the Colleges of Education and harmonisation of preparation for graduate and non-graduate teachers);
- (b) Development of the teaching profession;
- (c) Priorities and organisation of open education; and
- (d) Review of the present modes of financing of education.

In the course of our further deliberations, we shall no doubt be initiating educational research as appropriate.

9.4 The issues listed in this chapter are a guide to the programme of work we intend to embark upon in the next phase of our work. They are not meant to be comprehensive.

9.5 We are committed to work for the betterment of the education system in accordance with our terms of reference. In the years ahead when important changes will take place in Hong Kong, we believe that the highest priority should be given to education as it is the means whereby the people of Hong Kong can strive for economic prosperity, social well-being as well as personal fulfilment.

Provision of subsidised post-F 3 places on implementation of the recommendations contained in Chapter III "Junior Secondary Education Assessment System"

School year starting in Sept.	1987	1988	1989	1990	1991	1992	1993
1. Estimated 15 years old Population	85400	85400	84500	82300	79500	82300	82300
<hr/>							
2. <u>Provision of F 4 places</u>							
A. Existing Govt./Aid Schools							
I) Grammar/Technical	52760	52880	52800	52920	53000	52920	52880
II) Prevocational	1760	1760	3320	3320	3320	3320	3320
B. Bought Places in Private non-profit making Schools	2790	2790	2790	2655	2655	2655	2655
Sub-total	57310	57430	58910	58895	58975	58895	58855
<hr/>							
C. Stage V							
I) Phase I	640	1760	1760	1760	1760	1760	1760
II) Phase II	0	0	0	0	640	1600	1600
D. Stage VI							
I) New Schools	0	0	640	640	640	2080	2240
II) Bought Places	0	0	0	(2080)	(2080)	6080	6080
E. Sub-total Provision	57950	59190	61310	67375	68095	70415	70535
				(68815)	(69535)		
F. Provision as % of Age Group	67.86%	69.31%	72.56%	81.87%	85.56%	85.56%	85.70%
				(83.61%)	(87.47%)		

3. Provision of full-time basic craft places

A. Existing Approved Technical Institute/Training Centres	7000	7000	7000	7000	7000	7000	7000
B. New Technical Institute				600	600	600	600
C. Sub-total Provision	7000	7000	7000	7600	7600	7600	7600
D. Provision as % of Age Group	8.19%	8.19%	8.28%	9.23%	9.55%	9.23%	9.23%

4. Total Provision of post-F 3 places

A. F 4 places	57950	59190	61310	67375	68095	70415	70535
B. Full-time basic craft places	7000	7000	7000	7600	7600	7600	7600
C. Total	64950	66190	68310	74975	75695	78015	78135
D. Provision as % of Age Group	76.05%	77.5%	80.84%	91.09%	95.21%	94.79%	94.93%

Notes: It is proposed that the 9 schools due for completion in 1990 will not be required to operate F 4-5 classes in 1990 and 1991. This is because if these schools operate F 4 classes in these years (providing an additional 1440 places), the total F 4 provision in 1991 will be 87.47% (see figures in brackets) which exceeds the demonstrated demand of about 85% so far indicated.

October 1984

Remit for the University and Polytechnic Grants Committee on an Open University in Hong Kong

On the advice of the Executive Council it has been decided that the feasibility of an open university in Hong Kong should be investigated and that the advice of UPGC should be sought. Consequently, for the avoidance of ambiguity it has been necessary to prepare a remit on this topic for UPGC.

2. It is the Government's belief that an open university might be a valuable institution for Hong Kong. It is appreciated that some more exact expression of the Government's interest is required before UPGC can tender useful advice.
3. By an open university is understood an institution which is distinguished from a traditional university in the following ways:
 - (a) entrance qualifications are less rigorous than in traditional universities or entirely dispensed with;
 - (b) students do not congregate or receive instruction upon a university campus as a normal mode of study;
 - (c) a majority of the students will be in employment;
 - (d) distance learning methods will be employed; and
 - (e) standards of attainment will be expected to meet those of traditional universities so that academic awards should also be of similar standards.
4. By distance learning methods is meant the use of:
 - (i) specially prepared course materials suitable for students who may not have satisfied the normal matriculation requirements and who may be in full-time employment;
 - (ii) television and radio programmes designed for the purposes of the university; and
 - (iii) tutorial arrangements designed to compensate for the lack of personal contact implied in the foregoing.

5. Further to paragraphs 3 & 4, the following observations may be of assistance to the UPGC in formulating its advice:
 - (i) an open university in Hong Kong should not be visualized as a substitute whether inexpensive or not for a third traditional university in Hong Kong or as a substitute for any other institution recruiting mainly full-time students;
 - (ii) an open university in Hong Kong should concentrate upon courses which reflect community needs. In addition an attempt should be made to reconcile so far as is feasible, in the context of an open university, student aspirations and the full range of practical courses which may be required in the light of the accepted needs of the community; and
 - (iii) an open university should take as its principal target population persons who having achieved a satisfactory school education, have been unable to pursue studies at university level. The majority should be over 23 years.
6. The Government would wish to be advised
 - (i) whether the UPGC would advise the establishment of an open university;
 - (ii) if yes, what priority would UPGC assign to the establishment of an open university?
 - (iii) if no, is there some cognate institution which might perform the same or similar role which UPGC would recommend? and
 - (iv) what next steps would UPGC recommend should be taken by the Government in this field?
7. The Government would also wish to be advised regarding
 - (i) the most appropriate method by which a start might be made;
 - (ii) the feasibility and advisability of instituting courses below the first degree level;
 - (iii) the feasibility and advisability of attempting courses of a technical nature requiring heavy and expensive equipment;

- (iv) whether the existing public tertiary institutions have a part to play in the making and governance of an open university and whether any other facilities of these institutions might be utilized by the open university. The relationship of the open university with the external (HKU) and part-time (CUHK) degree programmes should be considered in this context;
- (v) whether entrance qualifications should be entirely dispensed with, or whether the Hong Kong Certificate of Education with five passes should form the minimum entry qualification required. Or is there a case in Hong Kong circumstances for requiring a higher initial qualification?
- (vi) how teaching material should be obtained or produced;
- (vii) whether instruction should be mainly in Chinese or mainly in English and whether any decision need be made in advance;
- (viii) whether the normal duration of study should be specified;
- (ix) what specialized advice should be sought before a decision is taken to institute an open university and what else should be done before a decision is taken to institute an open university; and
- (x) the appropriate scale of an open university with particular attention to economies of scale and the appropriate minimum scale. Following from this the Government would wish to be able to form a clear idea of unit costs (recurrent) and unit costs per graduate. The UPGC's advice on capital costs is also desired.

July 1983

UPGC's Report on an Open University in Hong Kong

1. The Remit

1.1 The Secretary for Education and Manpower wrote to the Chairman UPGC on 12 July 1983 inviting the Committee "to consider fully the question of an Open University in Hong Kong" and attached a remit. The remit defined that which Government had in mind by distinguishing an Open University from a traditional university in four ways: less rigorous entrance qualifications; study conducted away from a campus as the norm; the majority of students being in employment; and, distance learning methods being employed. However, standards of attainment were to be similar to those of traditional universities.

1.2 The remit defined "distance learning methods" by mention of specially prepared course materials, use of television and radio programmes and special tutorial arrangements. There followed 14 questions for which answers were requested.

2. UPGC Consideration

2.1 The UPGC gave preliminary consideration to the matter in September 1983 when it formed a small working group to investigate the matter in detail. Further consideration in some detail was given by the UPGC in March 1984 and July 1984.

2.2 The now considerable volume of literature on operating Open Universities, Distance Learning Schemes and Open Education initiatives in UK, USA, Canada, and Australia, has been studied and those with experience of managing open universities have been interviewed.

3. Main Recommendations

3.1 After careful consideration, we do not recommend that Hong Kong develops a higher educational institution modelled on the UK Open University. By this we mean an institution devoted to providing higher (and further) education by distance learning to students likely to be in employment, be of a mature age and have entry qualifications which may indicate less rigorous achievement than those following normal full-time courses. All the evidence that we have studied suggests that the minimum continuing constituency required to produce a viability in cost terms needs to be around 70,000 - 100,000. We are convinced that most of the necessary academic and technical expertise required to staff such an institution would not be found in Hong Kong, yet a knowledge of the needs of the territory in educational terms would be essential to success. The British Open University, for example, has not only its own staff but relies heavily on the staff of polytechnics and universities for tutoring. There would be a need to teach both in Cantonese and English. The cost of this bi-lingual preparation of teaching material would be excessively expensive yet it is unlikely that the material could be sold abroad to bring in income and reduce the long-term costs. In addition to these factors inhibiting the success of a UK Open University-style institution, there is the problem that most students would not be able to find an appropriate study environment at home. This would mean that a network of study centres would have to be provided and it is unlikely that tutoring by telephone links could be established without a heavy investment.

3.2 Whilst we do not recommend the establishment of an institution based on the UK Open University model, we do recommend that a very high priority is given as soon as possible to the development of what we will term 'open education'. By 'open education' we do not imply a single method or system of education or training provided through an institution devoted to reaching non-traditional students. We include distance learning by correspondence courses combined as appropriate with radio and television programmes, part-time attendance at existing recognised institutions, external degree and diploma programmes offered by a university, polytechnic or recognised college and short courses particularly those aimed at providing continuing education.

3.3 It may not be generally recognised that, within our definition of open education, there is a range of such courses already on offer. These are summarised in the Appendix.

3.4 If this work, and other forms of open education, is to be developed, some kind of co-ordination will be required. We recommend that the development be based on all the institutions providing higher education and that this development be a co-operative and collaborative venture, with a minimal co-ordinating machinery designed to eradicate gross overlap of effort and to facilitate collaboration where required. We believe that such co-ordination as will be necessary can and should be undertaken by the UPGC.

3.5 Our view is that open education should not be perceived as 'special' but as a normal part of higher education provision. The demand for continuing education at professional and technician level will increase as high technology makes its impact. The age range of candidates for some aspects of open education will span 18 years to retirement age; the courses will need to be at various academic levels, be both qualification and non-qualification courses, and be of varying duration. The needs of continuing education will include short courses and these may be aimed at groups already qualified at diploma, higher diploma, bachelor degree and post-graduate levels. Furthermore, a number of courses might properly be more biased towards 'training' than towards the 'academic' content normally associated with first degrees. Thirdly, it is probable that modes of unit credit accumulation will need to be employed which suggests that some modules might be at a level appropriate for credit to a particular level of academic or professional qualification.

4. Admission Qualifications

4.1 Each year, the present number of higher education student places available in Hong Kong is exceeded significantly by those with the minimum qualifications for admission. It follows that there is a constituency at least minimally qualified for entry to other kinds of courses which may be provided as open education. For the present, at least, we advise that there be a policy of setting admission qualifications at the level required by each course. That would help to avoid excessive wastage and keep the cost of each successful graduate/diplomate at a reasonable level.

4.2 If numbers warrant, it may be advisable to provide foundation or bridging courses designed to make good individual deficiencies in admission requirements. Again, this would avoid a high wastage rate.

4.3 Whilst a policy on admission qualifications is important, we believe that the particular difficulties which Hong Kong residents experience in finding a place for quiet, concentrated study may be an even more important factor in the successful development of a greatly enhanced open education system. Some arrangements for study centres may be necessary.

5. Duration of Study Periods

If our approach is adopted, the proposed HKU external degree and the CUHK part-time degree will be part of the scheme and the study duration for them will have been set. However, for new development, particularly those based on a modular credit system, it may be possible to set both minimum and maximum study duration periods. In any case, we recommend that the issue of transcripts recording each student's performance becomes an integral part of the scheme. Over a period, course designers will be able to adjust required study duration in the light of success/failure/performance norms drawn from an analysis of transcripts issued.

6. The Use of Television and Radio

6.1 There is no doubt that television and radio can be harnessed successfully to some aspects of open education. We see problems arising from the commercial competition for TV prime time particularly in the evenings when most of those employed and who seek to participate in open education are free. Radio presents less difficulty with earphone reception excluding environmental noise distraction. On balance we believe that a channel dedicated to education would meet the needs rather than all channels being required to allocate time for education programmes.

6.2 If a dedicated TV channel is created, there would need to be a well thought out policy on the use of the two languages, Cantonese and English. This could be on a broad educational policy that short course, non-qualification material and work at the foundation/bridging level should be in Cantonese and professional/degree level work in English. The use of sub-titling should be considered in most cases.

6.3 A dedicated TV channel would allow the devising of programmes targeted to different audiences at different times of the day and evening. Narrow interest groups and the community at large could be served as well as registered students.

7. The Production of Teaching Material

7.1 Whenever possible and appropriate, existing material should be purchased and used. If necessary, this should be translated into Cantonese. Video material, particularly, can lend itself to translated sub-titling. Purchased material could, when necessary, be adapted to local needs by being supplemented by 'wrap around' material. Doubtless, there will be a need to produce some material ab initio and here, in some cases, it would be more economical to contract out its production. If production costs are to be evened out, a critical mass is needed. This suggests very careful forward planning of the production schedule and the identification of target audiences.

7.2 It would be a mistake to conceive even the majority of open education as audio-visual; most will be printed in either or both of the two languages, English and Cantonese.

7.3 Subject experts, educational technology specialists, technical production and translation specialists will be required.

8. The Next Step

The next step must be for Government to decide in principle whether it wishes to proceed along the lines we advise. When a decision has been taken to proceed in a particular direction, further specialist advice may be required before outline costs estimating can be started. The UPGC would be willing to offer further advice and to discuss the matter in detail with Government.

August 1984

Current open education programmes

The University of Hong Kong's Department of Extra-mural Studies conducts courses leading to a diploma or certificate in Management, Engineering, English, Teaching of History, Journalism and Communication, Librarianship, Oriental Language, Contemporary China Studies, Computer Science and Housing Studies, as well as 828 courses not leading to an award. Enrolments are about 24,000 a year. Lists of certificate/diploma courses and broad subject areas of non-certificate/diploma courses are attached.

The Chinese University of Hong Kong's Department of Extramural Studies, which has enrolments of about 33,000 a year, currently offers certificate courses in Kindergarten Teaching, Japanese, Management, Computer Studies for Secondary School Teachers, a number of Arts subjects; has run fifty certificate courses in the past covering a wide range of subjects, as well as one diploma course; conducts radio courses with the Chinese channel of RTHK; offers correspondence courses in 23 subjects, provides self-learning courses and conducts courses by newspaper programme (including contact sessions), as well as some 276 general extra mural courses. Lists of the certificate courses, correspondence courses and of the broad classifications of the general extramural courses are attached. As well as running a Town Centre in Tsimshatsui, the Department holds some of the extra mural courses at rented school premises in Quarry Bay, Tsuen Wan, Shatin, Kwun Tong and North Kowloon.

The Hong Kong Baptist College's Division of Continuing Education offers a range of evening courses at centres on Hong Kong Island (61) and Shatin (15) as well as at the College itself (141), including part-time evening Certificate and Higher Certificate courses in Accountancy, Business Management, Purchasing and Supply and Secretarial Studies. A list of the broad classifications of the non-certificate courses is attached.

Apart from covering certain administration costs, the EMS Departments are financed by fee income.

The Hong Kong Polytechnic conducts part-time programmes including evening courses leading to Polytechnic awards, both on campus and at school premises hired for the purpose. A list of such part-time courses is attached. The Hong Kong Polytechnic also conducts ad hoc extension courses to meet demand, mainly from employers. A list of current extension courses is attached.

The Education Department also "offers formal and non-formal adult education courses through the Evening Institute, the Evening School of Higher Chinese Studies, 17 adult and recreation centres and 34

Appendix to Annex (3)
(Cont'd)

subvented agencies. Adult education courses are also provided by the evening departments of Technical Institutes and other private institutes. Formal education courses range from literacy classes to secondary and post-secondary studies." (Emphasis added. Source: "Hong Kong : The Facts. Education", HK Government Information Services)

University of Hong Kong

Certificate/Diploma Courses

Management Studies

Dip. Diploma in Management Studies

Personnel Management

Cert. Certificate in Personnel Management

Engineering

- Cert. 1. Certificate Course in Fundamentals of Digital Computers
2. Certificate Course in Advanced Electric Machines and Drives
3. Certificate Course in Electric Power Transmission

English Studies

- Cert. 1. Certificate Course in the Use of English
2. Certificate Course in English for Business
3. Certificate Course in English Speech

History

Cert. Certificate Course in Teaching History at Senior Level

Journalism and Communication

- Cert. 1. Certificate Course in Advertising Management
2. Certificate Course in Television Script-Writing
3. Certificate Course in Journalism

Librarianship

Cert. Certificate Course for Library Assistants

Dip. Diploma Course in Librarianship

Oriental Languages

- Cert. 1. Certificate Course in Mandarin
2. Certificate Course in Japanese

Political Science

Cert. Certificate in Contemporary China Studies

Computer Science

Cert. 1. Certificate Course in Digital Computer Programming

2. Advanced Certificate Course in Digital Computer Programming

Housing Studies

Cert. Certificate in Housing Studies.

University of Hong Kong

Extra Mural Studies

Non-certificate/diploma course areas

ART & DESIGN

BUSINESS STUDIES

ECONOMICS, BANKING & STATISTICS

MANAGEMENT STUDIES

EDUCATION

ENGINEERING

ENGLISH STUDIES

GEOGRAPHY & GEOLOGY

JOURNALISM & COMMUNICATION

LAW

MATHEMATICS

MUSIC

ORIENTAL LANGUAGES

(Mandarin, Cantonese, Chinese, Character, Japanese, Putonghua)

CHINESE STUDIES

(Literature, Translation, Philosophy, Art & Culture)

PHILOSOPHY & PSYCHOLOGY

POLITICAL SCIENCE

SCIENCE

COMPUTER SCIENCE

BIOMEDICAL SCIENCE

MEDICAL LABORATORY SCIENCE

HEALTH SCIENCE

SOCIAL WORK & SOCIOLOGY

HOUSING STUDIES

The Chinese University of Hong Kong

Certificate Course

Art

1. Certificate Course in Drawing and Painting
2. - " - in Print-making
3. - " - in Graphic Design
4. - " - in Advanced Illustration
5. - " - in Chinese Ink Painting
6. - " - in Commercial Photography

Audio Visual Language

Certificate Course in Basic Japanese

Computer Science

1. Cert. Course in Computer Studies for Secondary School Teachers
2. Certificate Course in Computer Studies Intermediate Level

Economics, Management, Accounting and Law

1. Certificate Course in Management for Executive Development
2. - " - in Recreation Management
3. - " - in Personnel Management
4. - " - in Training Management
5. - " - for Library Assistant

Education

Certificate Course in Kindergarten Teaching

Foreign Language

Certificate Course in English for Business

Mass Communication

Certificate Course in Film Making

Psychology

Certificate Course in Correctional Psychology

The Chinese University of Hong Kong

Extramural Studies

Correspondence courses

Chinese Language

Practical Chinese Writing

Approach to Chinese Poetry

Translation from English into Chinese

Business Administration

Principles of Economics

Child Development & Care

Principles of Two Dimensional Design

Chinese Painting

Introduction to Modern mathematics

Business Correspondence

Monochrome Drawing

Problems in English for Asians

Effective English Writing

English Comprehension

Advanced English Writing

English Vocabulary

What's Wrong with Your English

Introductory Business Correspondence

Idiom-Magic

General Principles of English Law

The Chinese University of Hong Kong

Extramural Studies

General extramural courses

ART

CHINESE LANGUAGE & LITERATURE

COMPUTER SCIENCE

DAY COURSES

ECONOMICS, MANAGEMENT, ACCOUNTING & LAW

EDUCATION

FOREIGN LANGUAGE

HISTORY & GEOGRAPHY

HOME CARE AND CRAFT

MASS COMMUNICATION

MUSIC, DANCE & DRAMA

PSYCHOLOGY

SCIENCE & MATHEMATICS

SOCIAL SCIENCES & RELIGION

SOCIAL WORK

COURSES BY NEWSPAPER

SELF-LEARNING PROGRAMME - EDUCATIONAL MATERIALS

Hong Kong Baptist College

Certificate Courses

I. Full-time Day Programmes

1. Certificate in Business Studies (General Business)
2. Certificate in Business Studies (Secretaryship)

II. Part-time Evening Certificate Programmes

1. Higher Cert. Programme in Accountancy
2. Higher Cert. Programme in Business Management
3. Higher Cert. Programme in Secretarial Studies
4. Higher Cert. Programme in Purchasing & Supply
5. Cert. Programme in Accountancy
6. Cert. Programme in Business Management
7. Cert. Programme in Secretarial Studies
8. Cert. Programme in Purchasing & Supply
9. Cert. Programme in Microcomputer

HONG KONG BAPTIST COLLEGE

Extra Mural Studies

Non-certificate courses

Accounting Courses

Business Courses

Computer Courses

Mass Communication Courses

English Courses

Art Courses

Gemmology Courses

Law Courses

Language Courses

Music Courses

Health Science Courses

Design Courses

Psychology and Social Work Course

Secretarial Courses

Chinese Literature and History Courses

Interest Courses

HONG KONG POLYTECHNIC PART TIME COURSES

DEPARTMENT OF APPLIED SCIENCE

Part-time day release programmes

Higher Certificate course in Chemical Laboratory Techniques
Higher Certificate course in Science Laboratory Techniques
Higher Certificate course in Biological Laboratory Techniques
Certificate course for Laboratory Technicians

Part-time evening programmes

Endorsement Certificate course in Laboratory Science
Higher Certificate course in Chemical Technology
Certificate course in Chemical Technology
Certificate course in Animal Technology

DEPARTMENT OF MATHEMATICAL STUDIES

Part-time evening programmes

Associateship course in Applied Statistics
Endorsement Certificate course in Applied Statistics
Higher Certificate course in Mathematical Studies
Certificate course in Mathematical Studies

DEPARTMENT OF NAUTICAL STUDIES

Part-time day release programme

Higher Certificate course in Naval Architecture and Shipbuilding

Short full-time courses

Master (Class 1) Certificate of Competency course
Class 2 Certificate of Competency course
Class 3 Certificate of Competency course
Class 4 Certificate of Competency course
Radar Maintenance course
Radar Simulator Course
Electronic Navigational Systems course
International Radio-telephony (Restricted) Certificate course
Efficient Deck Hand course
Efficient Lifeboatman's Certificate course
Automatic Radar Plotting Aids course
Ship Captain's Medical Training course
First Aid at Sea course

(Cont'd)

SCHOOL OF SOCIAL WORK

Part-time day release programmes

Diploma course in Social Work
Certificate course in Child Care
Certificate course in Social Services

Part-time evening programme

Diploma course in Social Work

DEPARTMENT OF ACCOUNTING

Part-time day release programme

Course leading to the joint examinations of the Hong Kong Society of Accountants (HKSA) and the Association of Certified Accountants (ACCA)

Part-time evening programme

Endorsement Certificate course in Accountancy
Endorsement Certificate course in Management Accountancy
Endorsement Certificate course in Company Secretaryship and Administration
Higher Certificate course in Accountancy
Higher Certificate course in Management Accountancy
Higher Certificate course in Company Secretaryship and Administration
Certificate course in Accountancy
Certificate course in Management Accountancy
Certificate course in Company Secretaryship and Administration
Certificate course in Accountancy
Course leading to the examination for the Certified Diploma in Accounting and Finance of the Association of Certified Accountants

DEPARTMENT OF BUSINESS AND MANAGEMENT STUDIES

Part-time day release programmes

Diploma course in Management Studies
Diploma course in Public Administration
Certificate course in Supervisory Management
Certificate course in Personnel Management
Certificate of Proficiency course in Stores Supervision
Certificate of Proficiency course in Insurance

Part-time evening programmes

Diploma course in Management Studies
Diploma course in Purchasing and Supply
Higher Certificate course in Business Studies
Higher Certificate course in Business Studies (Banking)
Higher Certificate course in Legal Executive Studies
Course leading to the Qualifying Examination of the Chartered
Institute of Transport (CIT)
Foundation course preliminary to the Course leading to the
Qualifying Examination Chartered Institute of Transport (CIT)
Course leading to the External Examination for Diploma in Industrial Management
Certificate course in Business Studies (Banking)
Certificate course in Supervisory Management
Certificate course in Industrial Management
Certificate course in Personnel Management
Certificate course in Business Studies
Certificate of Proficiency course in Stores Supervision

DEPARTMENT OF INSTITUTIONAL MANAGEMENT & CATERING STUDIES

Part-time day release programmes

Higher Certificate course in Hotel, Catering and Institutional Management
Certificate course in Hotel, Catering and Institutional Operations

SWIRE SCHOOL OF DESIGN

Part-time evening programmes

Higher Certificate course in Two-dimensional Design
Higher Certificate course in Three-dimensional Design
Higher Certificate course in Applied Photography
Higher Certificate course in Studio Ceramics
Higher Certificate course in Jewellery Design
Higher Certificate course in Creative Screen Printing
Higher Certificate course in Illustration
Certificate course in Foundation Design

DEPARTMENT OF BUILDING AND SURVEYING

Part-time day release programmes

Associateship course in Building Technology and Management
Course leading to the Final Part I Examination of the Chartered Institute of Building
Higher Certificate course in Building Studies (Architecture/ Building/Quantity
Surveying)
Higher Certificate course in Land Administration

(Cont'd)

Part-time evening programmes

Associateship course in Building Technology and Management
Course leading to the Final Part I Examination of the Chartered Institute of Building
Course leading to the Associate Examination of the Chartered Institute of Building
Endorsement Certificate course in Building Law
Endorsement Certificate course in Building Organization and Supervision
Certificate course in Building Studies

DEPARTMENT OF BUILDING SERVICES ENGINEERING

Part-time day release programme

Associateship course in Building Services

Part-time evening programmes

Endorsement Certificate course in Building Services
Endorsement Certificate course in Air-conditioning and Refrigeration
Higher Certificate course in Building Services Engineering

DEPARTMENT OF CIVIL & STRUCTURAL ENGINEERING

Part-time day release programmes

Associateship course in Civil and Structural Engineering
Higher Certificate course in Civil Engineering

Part-time evening programmes

Endorsement Certificate course in Concrete Technology
Course leading to Part 3 Examination of the Institution of Structural Engineers
Endorsement Certificate course in Design of Reinforced Concrete and Steel Structures
Endorsement Certificate course in Geology and Soil Mechanics
Endorsement Certificate course in Sewerage and Sewage Disposal
Endorsement Certificate course in Transport Planning and Traffic Engineering
Endorsement Certificate course in Water Supply and Treatment
Endorsement Certificate course in Civil Engineering Project
Management Endorsement Certificate course in Highway Engineering
Higher Certificate course in Civil Engineering
Higher Certificate course in Structural Engineering
Certificate course in Civil Engineering
Certificate course in Structural Engineering

Certificate of Proficiency course in Reinforced Concrete Construction
Certificate of Proficiency course in Geotechnical Engineering
Certificate of Proficiency course in Civil Engineering Laboratory

CENTRE OF LAND & ENGINEERING SURVEYING

Part-time day release programmes

Higher Certificate course in Land Surveying
Certificate course in Land Surveying (2 years course)
Certificate course in Land Surveying (1 year course)

Part-time evening programmes

Course leading to the Royal Institution of Chartered Surveyors Part I/II Examinations
Certificate of Proficiency course in Engineering Surveying

DEPARTMENT OF ELECTRICAL ENGINEERING

Part-time day release programmes

Higher Certificate course in Electrical Engineering

Part-time evening programmes

Endorsement units in Electrical Engineering
Endorsement to the Higher Certificate in Electrical Engineering course
Higher Certificate course in Electrical Engineering
Higher Certificate course in Electrical Installation and Building Services
Certificate course in Electrical Engineering

DEPARTMENT OF ELECTRONIC ENGINEERING

Part-time day release programme

Higher Certificate course in Electronic Engineering

Part-time evening programmes

Higher Diploma course in Electronic Engineering
Higher Certificate course in Electronic Engineering
Higher Certificate bridging course in Electronic Engineering
Certificate course in Electronic Engineering

DEPARTMENT OF MECHANICAL & MARINE ENGINEERING

Part-time day release programmes

Higher Certificate course in Mechanical Engineering
Certificate course in Mechanical Engineering

Part-time evening programmes

Associateship course in Mechanical Engineering
Endorsement to the Higher Certificate in Mechanical Engineering course
Higher Certificate course in Marine Engineering
Higher Certificate course in Mechanical Engineering
Certificate course in Mechanical Engineering

Short full-time course

Upgrading course for Seagoing Marine Engineer Officers

DEPARTMENT OF PRODUCTION & INDUSTRIAL ENGINEERING

Part-time day release programmes

Associateship course in Production and Industrial Engineering
Work Study course leading to the Certificate of the Institute of Management Services
Higher Certificate course in Production and Industrial Engineering

Part-time evening programmes

Work Study course leading to the Diploma Examinations of the Institute of Management Services
Work Study course leading to the Certificate of the Institute of Management Services
Higher Certificate course in Production and Industrial Engineering (Plastics)
Higher Certificate course in Production and Industrial Engineering
Higher Certificate course in Quality and Reliability Engineering
Endorsement units to the Higher Certificate in Production and Industrial Engineering
Course leading to the Part 2 Examination of the Council of Engineering Institutions (CEI) in 'The Engineer in Society'

INDUSTRIAL CENTRE

Part-time day release programme

Certificate of Proficiency course in Industrial Safety

Part-time evening programme

Certificate of Proficiency course in Industrial Safety

Certificate of Proficiency course in Industrial Security

INSTITUTE OF MEDICAL & HEALTH CARE

Part-time day release programmes

Diploma course in Extended Duty Dental Surgery Assisting

Certificate course in Optometry

Part-time evening programmes

Post-registration Certificate course in Diagnostic Ultrasound

Endorsement to the Higher Certificate course in Dental Technology course

Higher Certificate course in Dental Technology

Certificate course in Dental Technology

Certificate course in Diagnostic Radiography

INSTITUTE OF TEXTILES & CLOTHING

Part-time day release programme

Higher Certificate programme in Fashion and Clothing Manufacture

Part-time evening programmes

Associateship programme in Textile Chemistry

Associateship programme in Textile Technology

Programme leading to the Part I Examination of the Associateship of the Clothing and Footwear Institute

Higher Diploma programme in Textile Technology

Higher Certificate programme in Textile Technology

Higher Certificate programme in Fashion and Clothing Manufacture

Higher Certificate programme in Textile Chemistry

Certificate programme in Fashion and Clothing Manufacture

CENTRE OF ENVIRONMENT STUDIES

Part-time day release programmes

Associateship course in Noise and Vibration Control

Higher Certificate course in Water Pollution Control

Higher Certificate course in Wastes Management

Higher Certificate course in Air Pollution Control

Hong Kong Polytechnic - Extension Courses

Department of Applied Science

Extension courses

The Department will offer specialist extension courses depending upon industrial demand. Details of the courses will be available from the Department. Announcements will be made in the press as and when such courses are offered.

Department of Nautical Studies

Extension courses

Entrance requirements

Course	Duration (Hour)	Entrance Requirements
Radiotelephony (Restricted) Certificate (HK Operation) course	16	Applicants should possess a reasonable standard of written and spoken English or Chinese (Cantonese dialect), and be sponsored by their employers.
Shore based course for RYA Competent Crew and Day Skipper/Watch Leader	52	Basic sailing experience
Practical	2 (days)	
Shore based course for RYA/DOT Coastal Skipper and Yachtmaster (off-shore)	78	At least 3 years' experience in yachts over 22 feet long
Practical	6 (days)	
Shore based course for RYA/DOT Yachtmaster (Ocean)	40	Applicants should have attended the more elementary courses or have attained a high standard of knowledge and experience in seamanship and navigation.

Department of Accountancy

Extension courses

Entrance requirements

Course	Duration	Entrance Requirements
Revision courses for students of the Hong Kong Society of Accountants and the Association of Certified Accountants Joint Examination Scheme	9 Saturdays (afternoon and/or evening)	Registered students of the Hong Kong Society of Accountants or the Association of Certified Accountants.

Department of Business & Management Studies

Extension courses

Extension courses are offered in general and specific management subjects for supervisory, middle and senior management.

Courses are conducted in the firms' premises or at the Polytechnic. In the past years, a number of courses for supervisors have been conducted in Cantonese as well as English.

Interested organisations can obtain further details by contacting the Head of Department.

Department of Languages

Extension courses

Extension courses, often in Business English, are run for local organisations from time to time and as resources permit.

Department of Building & Surveying

Extension courses

Entrance requirements

Duration	Courses (Week)	Entrance Requirements
Site Management Modules	Refer to individual Modules	At least 2 years of industrial experience responsible positions and currently engaged in the construction industry; over 25 years of age.
Buildings Ordinance and Subsidiary Legislation	6 (2 hours per week)	Architectural personnel involved in planning and design of buildings
Construction Legislation and Control	6 (2 hours per week)	Management personnel in building firms undertaking construction works in Hong Kong
Clerk of Works' Report Writing	5 (2 hours per week)	Higher Certificate in Building Technology or equivalent qualification; engaged as a clerk of works or site supervisor in the construction industry.
Estimating and Tendering	6 (2 hours per week)	Higher Certificate in Building Technology or equivalent qualification; engaged in the construction industry, work in connection with estimating and tendering function.
Safety Practices in Construction	4 (2 hours per week)	Site managers, supervisors, safety officers and those engaged in the construction industry.
Post Contract Quantity Surveying and Final Account Adjustments	6 (2 hours per week)	Higher Certificate in Building Technology or equivalent qualification; engaged as a quantity surveyor or similar position in the construction industry.
Computer Applications in the Construction industry	8 (2 hours per week)	Engaged in the Construction industry at managerial level.
BASIC Programming for the Construction Industry: a Practical Approach	8 (2 hours per week)	Engaged in the construction industry at management level.

Department of Building & Survey (Cont'd)

Project Administration for Builders Site Supervision and Organization and Contract Procedures	4 (2 hours per week)	Management personnel in building firms engaged in contracts administration.
Course leading to the Final Part II Examinations of the Institute of Clerks of Works	Refer to course syllabuses	Students having passed the Institute's Intermediate Examination or an examination accepted by the Institute as an exemption.
Tutorial Revision for RICS QS Final/IQS Third Examinations	16-19 (one day per week)	Advanced Higher Diploma in Quantity Surveying, or have completed study for the Final Examination of the RICS/IQS in Quantity Surveying.
Tutorial Revision for RICS QS Part II/IQS Second Examinations	16-19 (one day per week)	Higher Diploma in Building Surveying, or have completed study for the Part II/Second Examination of the RICS/IQS in Surveying.
Tutorial Revision for RICS BS Part II Examination	16-19 (one day per week)	Higher Diploma in Building Surveying, or have completed study for the Part II Examination of the RICS in Building Surveying.
Tutorial Revision for RICS BS Final Examination	16-19 (one day per week)	Students having passed the Part II Examination of the Royal Institution of Chartered Surveyors (RICS) and completed study for the Final Examination of the RICS in Building Surveying.

Department of Civil & Structural Engineering

Extension courses

A programme of extension courses for practising engineers is being formulated for the academic year 1983/84. Details of the courses will be publicised as soon as they are available.

Department of Electrical Engineering

Extension courses

The Department will offer approximately 12 specialist extension courses depending upon industrial demand. Details of the courses will be available from the Department.

The courses listed below were conducted during the summer of the academic year 1982/83:

126	Home Appliance Motors
128	Electric Machine Control Using Micro-processor
129	Design and Practice of Electrical Wiring Installation
130	Introduction to Automation
132	Basic Power System Protection
134	Construction Activity in Electrical Distribution Systems
136	Generation and Interconnection System Design
137	Vacuum Switches and Some Special Switching Devices
138	Electric Lifts

Department of Mechanical & Marine Engineering

Extension courses

The Department offers a variety of extension courses during the year. The following is a list of extension courses offered over the years and some of them may be offered again depending on demand and the availability of staff. Most of these courses which are mainly held in the evenings cater for the need of practising mechanical and marine engineers in specific subject areas. Some of the course materials may be useful to students in their preparation for the Council of Engineering Institutions (CEI) Part 2 Examinations. Courses preparing students for the Department of Trade Extra First Class Certificate Examinations in Marine Engineering will be offered in 1983/84. Further information can be obtained from the Departmental Administrative Assistant.

Entrance requirements

Course	Duration (each 2 hours)	Entrance Requirements
Introduction to Instrumentation and Measurement I	6-10 weeks	
Introduction to Instrumentation and Measurement II	6-10 weeks	
Introduction to Applied Control Engineering	6-10 weeks	
Process Control I (Temperature Measurement and Control)	6-10 weeks	
Process Control II (Level, Pressure and Flow, Measurement and Control)	6-10 weeks	Completion of an appropriate Polytechnic Higher Certificate programme, or the equivalent; or sufficient working knowledge in the field.
Process Control III (Position, Speed and Motion Measurement and Control)	6-10 weeks	
Fluid Power I - Introduction to Hydraulic Systems	6-10 weeks	
Fluid Power II - Design and Installation of Hydraulic Systems	6-10 weeks	
Fundamentals of Applied Pneumatics/Low Cost Automation	6-10 weeks	
Advanced Applied Pneumatics/Low Cost Automation	6-10 weeks	
Industrial Waste and Pollution Control Techniques I and II	8 weeks each	
Pumps and Pumping Problems	6 weeks	

Department of Mechanical & Marine Engineering (Cont'd)

Boiler Feed Water Treatment and Testing	6 weeks	
Principles of Air-conditioning and Refrigeration I - Psychrometric Cycles and Load Calculations	4-6 weeks	
Principles of Air-conditioning and Refrigeration II - Refrigeration Cycles and Components	4-6 weeks	
Principles of Air-conditioning and Refrigeration III - Air Handling Unit, Air Distribution and Air Duct Design	4-6 weeks	Completion of an appropriate Polytechnic Higher Certificate programme, or the equivalent; or sufficient working knowledge in the field.
Applications of Air-conditioning and Refrigeration I - Air-conditioning Systems	4-6 weeks	
Applications of Air-conditioning and Refrigeration II - Heat Pump, Heat Transfer and Heat Recovery Systems	4-6 weeks	
Bioler Operator's course	6-10 weeks	
Fluid Power and Control for Marine Application	12 weeks	
Tribology	8 weeks	
Computing for Mechanical Engineering	10 weeks	
Mechanical Engineering	6 weeks	
Microprocessor Application Pleasure Crafe (Engineers) (English Class)	6 weeks	18 years of age of over. A reasonable standard of English if taking the English class.
Pleasure Craft (Engineers) (Chinese Class)	8 weeks	
Preparatory course for DOT Extra First Class Certificate Examination in Marine Engineering (Part A)	20 weeks	Holders of Certificate of Competency Class 1 (Marine Engineer Officer)

List of projects currently undertaken and scheduled to be
undertaken by the Educational Research Establishment of the Education Department

	<u>Project</u>	<u>Objective</u>
A. <u>In hand</u>		
(1)	Development of Hong Kong Attainment Tests (Series III) in Chinese, English & Mathematics at P 4-6 levels	To construct a new series of attainment tests to replace the series II tests (which were produced in 1978) for use by primary schools to assess pupils' attainment in the respective subject in comparison with the general standard in Hong Kong; to diagnose strengths and weaknesses of pupils in the subjects for guidance purposes; to identify weaker pupils for remedial teaching, and to monitor changes in standards across years.
(2)	Development of graded Chinese and English tests, levels I to IV (including a listening test for the English papers)	To construct instruments for assessing the language proficiency appropriate to the starting level of F 1 up to the terminal level of F 3, for use in the various language research projects, and some future monitoring projects.
(3)	Development of an aptitude test for prevocational schools	To provide an instrument for selection of P 6 pupils into prevocational schools.
(4)	Development of A Teacher's Guide to Assessment	To produce an adapted version of the International Association for Education Assessment Package in the same topic

	for use in teacher-training and by practising teachers in school; the need for the production of this adapted package has arisen from an increased demand for more accurate internal school assessments.
(5) Language research	To study the effects of the medium of instruction in the teaching of subjects other than English and Chinese on the academic performance of Form/Middle 1-3 pupils.
(6) A Study of the drop-outs in adult education courses	To study the rates of and the causes for dropping out in various adult education courses.
(7) Evaluation of student guidance officers' scheme	To find out the difficulties encountered in the student guidance officers' scheme and to explore possible methods to overcome them.
(8) The establishment of an item bank	To build up in the course of test development for the various projects a substantial bank of items for reference or for actual use in future.
(9) Development of Hong Kong Attainment Tests (Junior Secondary) Chinese and English, Series I	As an upward extension of the Hong Kong Attainment Tests (P 4-6), to construct Attainment Tests in Chinese and English at F 1 to 3 levels for use by school teachers as well as for use by ERE in monitoring standards.

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| (10) Monitoring the effects of the Primary One Allocation System on the pattern of intakes into individual primary schools | To monitor the changes, if any, of the academic standards and ability levels of P 1 pupils. |
| (11) Monitoring the standards of Chinese, English and Mathematics at P 4-6 level | To monitor the changes, if any, of the academic standards of P 4-6 pupils in Chinese, English and Mathematics over time. |
| (12) Monitoring the standards of Chinese, English and Mathematics at F 3 level | To monitor the changes, if any, of the academic standards of F 3 pupils in the three basic subjects. |
| (13) Medium of instruction in the classroom (in collaboration with HKU) | To study the effects of the medium of instruction on the performance of pupils in tests presented in different language modes. |
| (14) English vocabulary study (in collaboration with CUHK) | To compile vocabulary lists showing the difficulty levels of individual words which occur frequently in junior secondary school textbooks. |
| (15) Chinese lexical units (in collaboration with CUHK) | To compile lists of Chinese lexical units frequently occurring in junior secondary school textbooks, magazines and newspapers commonly read by junior secondary school pupils, and to ascertain the difficulty levels of the units. |

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| (16) A short-term intervention study (in collaboration with HKU) | To study the effects of language enhancement in the teaching materials and in the oral presentation of the materials on the mastery of learning by F 2 pupils in History and Integrated Science. |
| (17) Standardisation of the Raven's Progressive Matrices Test (in collaboration with Special Education Section) | To establish the Hong Kong norms of the test for use by the Special Education Section for the identification of pupils with learning difficulties; to validate the test with reference to various ability and attainment measures. |
| (18) Survey on communication with the deaf (in collaboration with Special Education Section) | To study problems related to the communication with the deaf. |
| (19) Evaluation of revised resource classes (in collaboration with Special Education Section) | To evaluate the effectiveness of the revised resource classes in the integration of pupils with learning difficulties with other pupils in the school, to compare the progress made by the revised resource class pupils with that of the existing provision - the special classes; and to identify factors affecting the progress of pupils in revised resource classes. |
| (20) Validation of HK - WISC (in collaboration with Special Education Section) | To establish the Hong Kong norms of the test for use by the Special Education Section; to validate the test. |

(21) Standardisation of the Reynell Developmental Language Scales (in collaboration with Special Education Section and Medical and Health Department)

To standardise the Reynell Developmental Language Scales for use in Hong Kong by Medical & Health Department.

(22) A pilot scheme of the extensive reading scheme (in collaboration with HKU and ILE)

To study the feasibility of implementing the English Language Reading Programme developed by the Institute of Applied Linguistic Studies, University of Edinburgh on a pilot basis.

B. Scheduled to be undertaken from 1985-86

(23) Development of Hong Kong Attainment Tests (Junior Secondary), Series I, Mathematics

To construct Mathematics Attainment Tests at F 1-3 levels as an upward extension of the Hong Kong Attainment Tests at P 4-6 levels and as a complement to the two language tests being developed to form a battery of tests in the basic academic subjects at junior secondary level.

(24) Development of Hong Kong Attainment Tests (P 1-3) in Chinese, English and Mathematics

To construct Chinese, English & Mathematics Tests at P 1-3 levels as a downward extension of the Hong Kong Attainment Tests at P 4-6 levels, and to complete a whole battery of tests in the basic academic subjects in primary schools.

(25) Construction of a developmental intelligence scale (Age 2-8)

To construct an intelligence test for use with local children to supplement or to replace the overseas tests which are now in use.

(26) Monitoring the standards of Chinese and English at F 1-3 levels

To monitor the changes, if any, of the standards of F 1-3 pupils in Chinese and English over time.

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| (27) Monitoring the standards of Mathematics at F 1-3 levels | To monitor the changes, if any, of the standards of F 1-3 pupils over time. |
| (28) Monitoring the standards of non-basic academic subjects at F 3 level | To monitor the changes, if any, in pupils' attainment levels in seven non-basic academic subjects over time; to relate the changes in attainment levels to the change in the education system and to the introduction of new educational provisions/services. |
| (29) Monitoring the standards of practical subjects at F 3 level | To monitor the changes, if any, in pupils' attainments in the subjects of Art & Design, Design & Technology, Home Economics; test results to be analysed individually for the three subjects, and to be related to the pupils' performance in the three basic academic subjects. |
| (30) Development of aptitude tests for career guidance (in collaboration with Careers Guidance Section) | To construct aptitude tests for use in schools by teachers for career guidance including the streaming of pupils. |
| (31) Further assessment of activity approach (in collaboration with Advisory Inspectorate) | To further study the effects of the activity approach on the outcomes in terms of the level of performance of pupils in the subjects to be studied as well as the personal development of the pupils. |
| (32) The effects of the teaching of putonghua on the written aspects of the Chinese Language (in collaboration with Advisory Inspectorate) | To study the effects of the teaching of putonghua on the level of writing Chinese; to compare the effects of the different modes of teaching putonghua, i.e. as a subject in the school curriculum, |

(33) Validation of the aptitude tests for prevocational school entrance (in collaboration with prevocational schools)	and teaching it as an extra-curricular activity.
(34) Identification of difficulties in reading (in collaboration with Special Education Section)	As a sequel of the construction of these tests, to validate the tests by relating the pupils' performance in the tests to their performance in their prevocational course.
	To develop lists of characters and/or passages consisting of the characters for the identification of the various types of reading difficulties for use by the Special Education Section for screening purposes.

List of projects scheduled to be undertaken by the Educational
Research Establishment of Education Department as and when time and resources permit

<u>Project</u>	<u>Objective</u>
(1) Curriculum patterns and subject streaming at the secondary school level	To investigate the curriculum patterns including the streaming of pupils into Arts, Science or Commercial classes etc. among grammar and technical secondary schools; to relate this to the opportunities offered to pupils as well as to restriction of choices given to pupils, and to the possible effects on teachers; to explore the difficulties in offering courses/subjects the pupils may demand etc.
*(2) An evaluation of the teaching of two parallel subjects in the secondary school curriculum - Social Studies and Economic & Public Affairs	To study the outcomes of pupils after studying Social Studies and Economic & Public Affairs for three years (F 1-3) and to compare them with reference to their acquired knowledge for further study at F 3, and their personal development in other aspects.
*(3) An evaluation of textbook design on the learning process at primary and secondary school levels	To study the effects of the different dimensions of textbook design, such as the amount/method of illustrations, the lay-out of materials, and the presentation of materials etc. on the learning process at primary and secondary school levels.

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| (4) Survey on the teaching situation in kindergartens | To conduct a large-scale survey on the learning environments of kindergarten pupils, which may include the physical surroundings, the arrangement of chairs/desks in the classroom, the availability and use of facilities in the school; to relate these variables individually and collectively to the academic attainment, social and personal development of the pupils. |
| *(5) Evaluation of the International Baccalaureate Programme | To evaluate the International Baccalaureate Programme in terms of its reception by pupils; the chances of gaining entry into universities; and to compare the outcomes of pupils following this course with those following an advanced level course. |
| (6) Further evaluation of the remedial teaching scheme | To evaluate the effectiveness of the remedial teaching scheme in helping the less able pupils in their Chinese & English at the junior secondary level; to relate the progress made by pupils in different schools to the mode of operating remedial teaching classes in the schools. |
| (7) Studies of the effects of under-age and over-age on learning | To explore and investigate the effects of over-age and under-age on the academic performance of pupils as well as on their confidence/ self-image in learning; to explore the causes of over-age and under-age; the effects of repeating and accelerated promotion will also be included. |
| *(8) Correlation studies between Hong Kong Certificate of Education, the Higher Level and the Advanced Level Examinations | To establish the predictive indices of the Hong Kong Certificate of Education examinations, collectively and individually, with reference to the Higher Level and Advanced Level examinations by correlational studies. |

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| <p>(9) Continuity of curriculum and teaching practices between kindergarten and primary school level of education</p> | <p>To identify the differences in curriculum and teaching practices between kindergarten and primary schooling; to identify the difficulties encountered by pupils in their transition from kindergartens to primary schools, to explore ways and means of facilitating the transition.</p> |
| <p>(10) Continuity of curriculum and teaching practices between primary and junior secondary levels of education</p> | <p>To identify the differences in curriculum and teaching practices between primary and junior secondary schooling; to identify the difficulties, if any, encountered by pupils on entry to secondary schools; to explore ways and means of facilitating the transition.</p> |
| <p>(11) Continuity of curriculum and teaching practices between junior secondary and senior secondary and senior secondary levels of education</p> | <p>To identify the differences in curriculum and teaching practices between junior secondary and senior secondary schooling; to identify the difficulties (academic and emotional) encountered by pupils on promotion to F 4; to explore ways and means of facilitating the transition.</p> |
| <p>* (12) The ease of learning simplified Chinese characters at different school levels</p> | <p>To study the level of difficulty in learning simplified Chinese characters at different school levels, from P 4 to F 5 levels; the ease of learning will be studied with respect to individual characters as well as groups of characters having the same radicals.</p> |
| <p>(13) Comparison between long-term and short-term form-master and pupil relationship</p> | <p>To study the effect of a longer term of relationship between form-master and pupil on the pupils' academic performance,</p> |

(14) An evaluation of the procedures for the introduction of new subjects of revised syllabus in the school curriculum

personal and social development; to relate the teacher personal attributes to the pupils' performance and attitude toward learning by length of relationship.

To examine critically the process in the development of a new or revised syllabus currently adopted by the Curriculum Development Committee; to explore ways of improving and facilitating the process; to study the feasibility of introducing a stronger built-in research element in the process

Note: The two universities and the polytechnics have been approached on the possibility of their undertaking those projects indicated by an asterisk.

List of current major projects conducted by the University of Hong Kong, the Chinese University of Hong Kong and the Hong Kong Polytechnic

1. The I.E.A. Mathematics survey

- Objective : (a) to assess on the basis of internationally comparable measures, the mathematics performance of F 1 and F 6 and 7 students in Hong Kong;
- (b) to compare the intended, implemented and attained curriculum in mathematics at each level with the curricula of the other 23 countries taking part;
- (c) to determine whether the presumed excellence of mathematics of the best Hong Kong students was achieved at the expense of inappropriate curricula for its less able students;
- (d) to account for differences in achievement in mathematics amongst the sample tested in terms of various factors proudly grouped into those deriving from
- a. Home background
 - b. School characteristics
 - c. Teacher qualities and teaching approaches
 - d. Individual differences amongst students

2. The I.E.A. Science Study

Objective : similar to those of the Maths. study described above, although it is more ambitious in its coverage of both curricula and populations. Chemistry, Biology and Physics are represented at the upper secondary level in F 6-7, while Junior/Integrated Science is covered in F 2 and the beginnings of the study of science in P 4.

3. The I.E.A. early childhood education survey

Objective : To assess on the basis of internationally comparable measures, the goals, curricula and achievements of kindergarten education.

4. The I.E.A. medium of instruction study

Objective : To assess the effect of instruction through the medium of a second language.

5. The enhancement of instructional media (already referred to under item (16) of Annex (4))

Objective : To study the effects of language enhancement in the teaching materials and in the oral presentation of the materials on the mastery of learning by F 2 pupils in History and Integrated Science.

6. Physical activities and quality of life in densely populated urban areas

Objective : To provide input for the design and implementation of suitable physical education and recreational programs for school-age children and the formulation of policy for stress reduction.

7. An analysis of factors affecting satisfaction and dissatisfaction of teachers

Objective : To analyse the factors affecting satisfaction and dissatisfaction of teachers by making a comparison of factors distribution between Polytechnic lecturers and secondary school teachers, investigating the concept of job enrichment and to make recommendations for future research in school management in the Hong Kong context.

8. Computer assisted language learning

Objective : To investigate the current use of Computer Assisted Language Learning (CALL) and compile a set of evaluation criteria in order to determine some advantages and

disadvantages associated with various CALL techniques. Also to determine areas where CALL may be integrated into the usual classroom syllabus and supply a unique contribution to the learning process and to design and implement a CALL package of programs to fulfil the aims defined above. Eventually the package will be improved by integrating results and conclusions gathered from staff and students during testing and pilot studies of the programs with the hope of establishing as far as possible some design criteria for CALL software.

9. Computer education in developing countries

Objective : The effective way of introducing computers into developing countries has been a subject of international debates and conferences. It is generally agreed that the role of computer education, availability of qualified manpower, trained specialists and users, qualified teachers and staff for imparting education and training, general public awareness, etc. are some of the essential factors which should be taken into consideration for effective transfer of technology pertaining to informatics and computing. The main objective of the research is to study the ways to overcome the problems posed by such factors including social, economic and political.

10. English language testing for the Polytechnic English Test

Objective : The Polytechnic English Test (PET) is designed to diagnose the difficulties students have when studying their subject discipline through the medium of English. The test data will provide a 'study skills' profile of each student which can be used (1) to predict academic success (2) to specify individual learner's language learning needs and (3) to indicate areas to be focussed on during English language courses.
