Institute of Education
Singapore

POSTGRADUATE STUDIES HANDBOOK 1988

A4H9037

CONTENTS

INTRODUCTION

The Institute of Education was established on 1 April 1973 under the Institute of Education Act (1970). The Institute is the only tertiary institution in Singapore engaged in teacher education. The 1970 Act empowers the Institute to conduct postgraduate courses leading to the award of the Master of Education (M Ed) and the Doctor of Philosophy in Education (Ph D). Section 4(2) of the Act states that the Institute may

> "provide for the examination, from time to time,
> of students or other persons and to confer degrees
> and diplomas and grant certificates to successful
> candidates, and provide for the registration of the
> holders of such certificates".

All postgraduate degrees are awarded by the National University of Singapore (NUS).

HIGHER DEGREE STUDIES

A candidate for the degree of Doctor of Philosophy in the field of education must pursue an approved course of advanced study and research. A thesis on a research topic approved by the Institute of Education Board of Postgraduate Studies and Research must be submitted within five years from the date of his admission as a candidate for the degree.

For the M Ed degree the minimum period of candidature is twelve months and the maximum period is thirty-six months from the date of registration. Coursework for the programme begins in the first week of January.

A candidate may be required to present himself for an oral examination on the subject matter of the thesis and in the area of his specialisation. The candidate may also be required to take a written examination.

Application forms for enrolment in the M Ed and Ph D programmes are available from the office of Head/Student Affairs, 3rd Storey, Institute of Education, 469 Bukit Timah Road, Singapore 1025.

The applicant must also submit a research brief indicating the tentative research topic and the proposed approach to the problem (See Annex A).

ADMISSION REQUIREMENTS

For the degree of Master of Education, the candidate must have

(a) a good degree from the National University of Singapore or from universities approved by the Senate of the NUS;

(b) a Diploma in Education or its equivalent; and

(c) at least two years of working experience in the education service.

For the degree of Doctor of Philosophy in Education, the candidate must have

(a) satisfied the requirements for admission into the M Ed programme as listed above, and

(b) a master's degree from universities approved by the Senate of NUS.

SCHEMES OF STUDY

To provide the widest opportunity for candidates who meet the requirements for registration for the M Ed degree, there are three schemes of study:

(a) <u>Full-time study</u>

Candidates who meet the M Ed registration requirements are eligible to register as full-time candidates for the M Ed degree. The full-time study scheme also caters for candidates under Ministry of Education sponsorship.

(b) <u>Part-Time study</u>

For serving officers in the Education Service who, for one reason or another, may not find the full-time scheme of study feasible the Institute of Education offers a part-time scheme of study. To avoid disruption to the serving officer's teaching and other commitments to his work, courses will be run in the afternoons and on Saturday mornings, where possible.

(c) <u>Full-Part-Time study</u>

Serving officers in the Education Service who have served six years or more are eligible to apply for six months half-pay leave. Such officers may wish to register for full-time study for Part I of the M Ed programme (course work) and to pursue Part II of the programme (research) as part-time students.

FEES

All fees must be paid punctually as they fall due (during the first two weeks of each semester); failure to do so will incur a late fee charge of $10. Failure to pay fees beyond the third week of the semester will lead to suspension from the programme till all fees are paid. The Institute reserves the right to revise fees at any time.

Fees payable by candidates are as follows:

	M Ed	Ph D
University Registration Fee	$50	$50
Course Fee		
° Full-time 1st year	$800 p.a. ($1100 p.a.)	-
° Part-time 1st & 2nd year	$400 p.a. ($550 p.a.)	-
Research Fee		$425($500 p.a.)
° Full-time 2nd year	$350 p.a.($450 p.a.)	-
° Part-time 3rd year	$350 p.a.($450 p.a.)	-
Supplementary Fee	$28 p.a.	$28 p.a.
Examination Fee	$150 (payable at the time the candidate submits his thesis for examination or at the time he sits any written examination in connection with his candidature - whichever is the earlier)	$200 (payable at the time of submission of thesis or published works)
Degree Fee	$50	$50
	(Payable at the time of award of degree)	

Figures in brackets indicate the fees payable by persons who are not citizens or permanent residents of Singapore. Where no such indication is given, all will pay the same fees. All fees quoted are in Singapore dollars.

LIBRARY FACILITIES

All postgraduate students must register with the Library. Upon registration each student is given ten library tickets : nine for borrowing general books for a period of one month and one for borrowing Reserved Books for two hours.

Each student will be credited with 200 dollars for on-line computer search on topics approved by the supervisor.

Further information on the IE Library is available in the "Guide to the IE Library" which is distributed to all students on enrolment.

MASTER OF EDUCATION PROGRAMME

The M Ed programme consists of two parts: Part I comprises taught courses and seminars, and Part II requires the student to carry out research leading to the submission of a dissertation.

PART I of the M Ed programme requires the student to

(a) take a compulsory integrated combination of courses comprising Research Methodology, Educational Statistics, Practicum I (Computer Usage) and Practicum II (Proposal Preparation);

(b) take two elective courses related to the proposed area of research and one elective course in a relevant field; MOE-sponsored candidates must include Management and Organisation Theory, and Personnel Management as their elective courses;

(c) submit a research proposal for the approval of the IE Board of Postgraduate Studies and Research; and

(d) attend and participate in invitational seminars.

The student is deemed to have successfully completed Part I of the M Ed programme when he completes the above course work requirements to the satisfaction of IE's Board of Postgraduate Studies and Research and has his research proposal approved by the same Board.

PART II requires the student to carry out his research based on the approved proposal. The minimum period for submission of dissertation is six months from the time his research proposal has been approved.

Fields of study for specialization are organized under three areas:

(A): Educational Studies Specialisation

° Research/Issues in Educational Psychology
° Research/Issues in Sociology of Education
° Research/Issues in Teacher Education
° Educational Measurement

(B): Curriculum Studies Specialisation

° Research/Issues in Language Education
° Research/Issues in Mathematics Education
° Research/Issues in Science Education
° Research/Issues in Social Studies Education

(C): Educational Administration

° Personnel Management
° Management and Organisation Theory
  (Prescribed courses for MOE-sponsored candidates. Also available for other candidates.)

Assessment of Coursework

Assessment is by formal assignment or its equivalent. The paper submitted for assessment must be between 3,000 and 5,000 words (approximately 10 to 15 double-spaced typewritten A4 sheets).

Assignments for courses taken in any particular term must be submitted to course tutors within one week after the end of a course. Students may retrieve their assignments from course lecturers within one month of the release of results by the Examination Office. Good assignments may be retained and deposited at the IE Library.

Dissertation

On admission, the student will be assigned a supervisor who guides the student in formulating the research proposal and choosing courses to support the research study, and supervises the dissertation. The supervisor will also advise the student on administrative matters.

In the proposal phase, the different strands of thought and skills taught in the Research Methodology and Educational Statistics courses on the one hand, and the courses which bear on the area of specialisation on the other are brought together into a meaningful whole as research questions are asked, analysed and critiqued in preparation for writing the research proposal (See Annex B).

The Ministry of Education has regulations for data collection in School. Students should plan for data collection well in advance, if the dissertation are of an empirical nature.

The candidate is required to notify Head/Student Affairs through the supervisor at least three months before the possible date of submission of dissertation. A brief of about 500 words on the research should be submitted together with the notification.
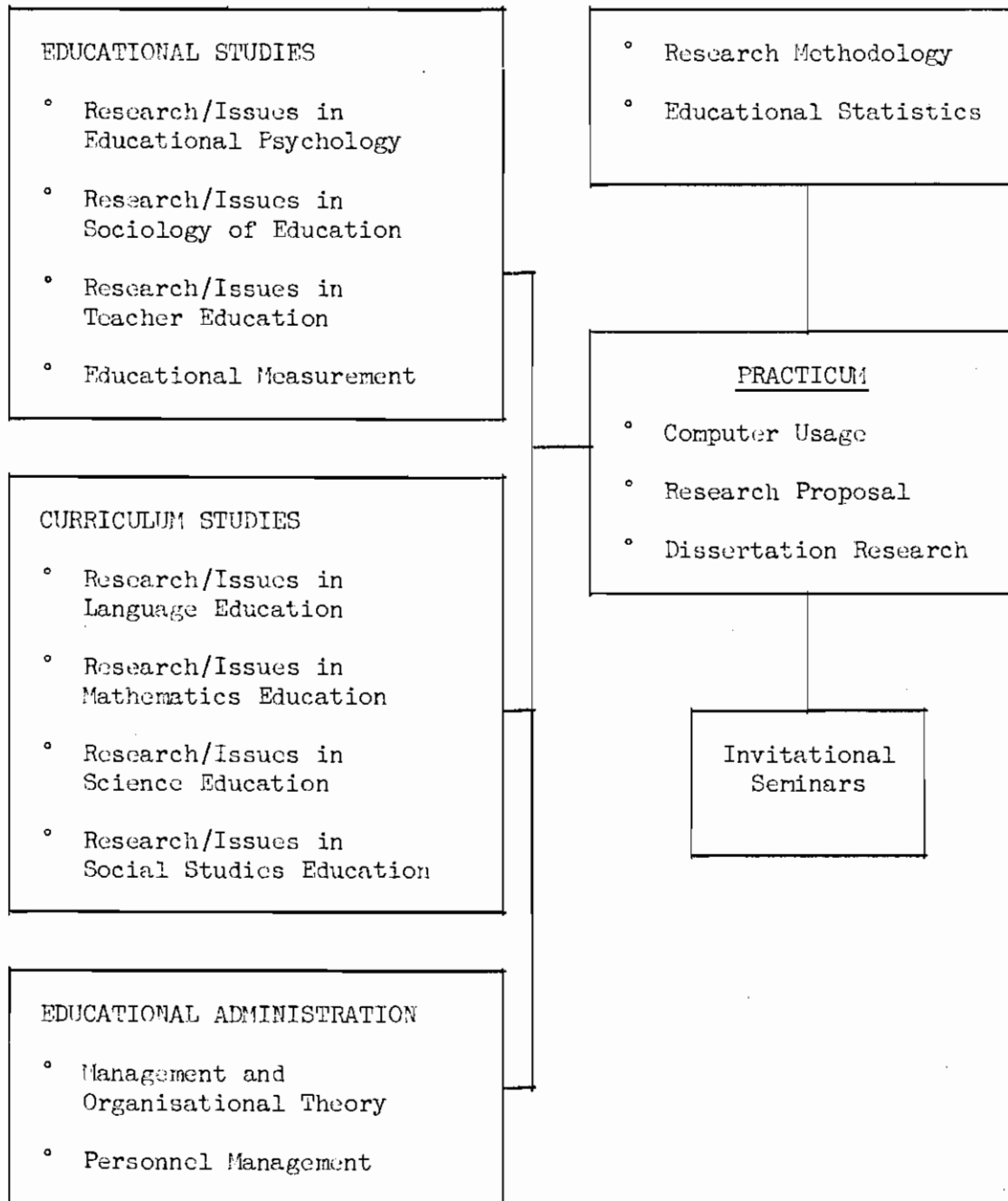
Students should refer to Postgraduate Studies Handbook of the National University of Singapore for regulations regarding length and format of dissertation.

A covering letter together with seven copies of the dissertation should be submitted through the supervisor to the Head/Student Affairs.

Invitational Seminars

From time to time, seminars will be conducted by members of IE staff and by visiting scholars concerning their research work. The seminars on IE research projects will be conducted during the orientation period. Postgraduate students are expected to attend these seminars so as to broaden their knowledge of the content and methodology of research in education.

M ED PROGRAMME STRUCTURE

EDUCATIONAL STUDIES

° Research/Issues in
  Educational Psychology

° Research/Issues in
  Sociology of Education

° Research/Issues in
  Teacher Education

° Educational Measurement

CURRICULUM STUDIES

° Research/Issues in
  Language Education

° Research/Issues in
  Mathematics Education

° Research/Issues in
  Science Education

° Research/Issues in
  Social Studies Education

EDUCATIONAL ADMINISTRATION

° Management and
  Organisational Theory

° Personnel Management

° Research Methodology

° Educational Statistics

PRACTICUM

° Computer Usage

° Research Proposal

° Dissertation Research

Invitational
Seminars

SCHEDULE OF M ED PROGRAMME

Term	Full-Time		Part-Time	
First Term (Jan – Mar)	Courses Orientation Seminars Research Methodology Ed Statistics Practicum I (Computer Usage) Elective Course I	Hours – 30 30 30 30	Courses Orientation Seminars Research Methodology Ed Statistics Elective Course I	Hours – 30 30 30

Second Term (Apr – Jun)	Elective
	  Courses II & III
	Practicum II
	  (Research Proposal)
	
	PRESENTATION OF PROPOSAL
	  FOR APPROVAL (JULY)
		60
		30
			Elective Course II
			Computer Usage
				30
				30

	J U N E V A C A T I O N			

Third Term (Jul – Sep)	Research*		Elective Course III
			Practicum II
			  (Research Proposal)
			
			PRESENTATION OF PROPOSAL
			  FOR APPROVAL (NOVEMBER)
				30
				30

Fourth Term (Sep – Nov)	Research (Continued)		Research*	
	D E C E M B E R V A C A T I O N			
First Term (Jan – Mar)	Research (Continued)		Research (Continued)	
Second Term (Apr – Jun)	Research (Continued)		Research (Continued)	

* <u>Minimum</u> time allowed for submission of dissertation: 6 months from date of proposal approval. <u>Maximum</u> time allowed for submission of dissertation: 36 months from date of <u>registration</u> for Master's programme. However, full-time candidates are expected to complete the programme within 18 months and part-time candidates within 24 months.

COURSES OF STUDY

Research Methodology

Dr Seng Seok Hoon (Co-ordinator)
Dr Ko Peng Sim

This course aims to provide students with skills and knowledge of research methodology for the purpose of planning research in education.

Content: Nature of educational inquiry; research methodology; planning and designing research; measurement and data collection; evaluation of research studies.

Educational Statistics

Dr Chong Tian Hoo

The course provides students with a knowledge and understanding of the statistical methods commonly used in educational research and evaluation.

Content: The nature of statistics; measures of central tendency, dispersion, skewness and correlation; graphic presentations; probability and sampling; hypothesis testing and inferential statistics; univariate tests; regression and correlation; analysis of variance; analysis of covariance; multiple correlation; multiple regression, partial correlation; factor analysis.

Computer Usage (Practicum I)

Mr Lam Tit Loong

This course enables students to access SAS (Statistical Analysis Systems) in preparation for their empirical research involving data analysis.

Content: SAS data entry and editing features; reordering data sets; SAS commands with options: PROC MEANS, PROC TEST, PROC ANOVA, PROC GLM, PROC FREQ, PROC NPARIWAY, PROC REG, PROC STEPWISE, and PROC FACTOR.

Educational Measurement

Dr Soh Kay Cheng

The course further develops relevant topics covered in Research Methodology and Educational Statistics through practical workshops and prepares the students for instrumentation related to their empirical research.

Content: Substantive and measurement models; cognitive and affective domains; measures of maximum performance and typical performance; test development and adaptation; attitude scaling and questionnaire design; methods of evaluating reliability and validity.

Management and Organization Theory

Dr Richard Brown

The course is designed for senior education officers. It enables them to examine their professional roles, functions and skills in a systematic way. Participants analyse their management roles and strategies in the light of current theory and research findings.

Content: Management and organisation in education; educational leadership; managers as planners; building staff morale; managers as organisers; improving organisational climate; managers as change agents and decision makers; the function of controlling.

Personnel Management

Dr Wee Joo Liat

The course is designed to help students gain the essential theoretical principles and skills on how to manage people so that they can function effectively within their organizations and contribute to the achievement of the organizational goals.

Content: The organizational and individual context of personnel management; human resource planning; human relations skills; staff motivation; evaluation and development; grievance handlings and discipline; stress management and organizational development.

Research/Issues in Educational Psychology I

Dr Ko Peng Sim

The course introduces students to selected topics in educational psychology which are relevant to teaching and learning. Reference will be made to topics which are much discussed in recent years, especially those relevant to Singapore.

Content: Early experience and human development; intelligence, cognitive development, and academic achievement; teacher expectation and its effect on students; attribution and perceived control of classroom related behaviour.

Research/Issues in Educational Psychology II

Dr Ko Peng Sim

The course introduces students to selected topics in educational psychology which are relevant to teaching and learning. Reference will be given to topics which are much discussed in recent years, especially those relevant to Singapore.

Content: Human variations and methods of instruction; human variation and problems in adjustment; interpersonal relations in the classroom; classroom management and learning environment.

Research/Issues in Sociology of Education I

Dr Pauline Chan

The course is designed to enable students to develop an understanding of the major areas of sociological enquiry and to formulate an interpretive framework to examine educational problems in a more global perspective.

Content: Education and development; equality of educational opportunity; agencies of socialization; cultural and economic reproduction in education; the social context of instruction in the classroom; control and autonomy in teaching.

Research/Issues in Sociology of Education II

Dr Pauline Chan

The course is designed to enable students to develop an ability to evaluate critically research literature, to master the skills in conceptualization and methodology for applied research and to formulate critical questions in a chosen area of research.

Content: Critical analysis of sociological theory and methodology; research studies in the following areas: differences in educational attainment, school organization and school effectiveness, family socialization and academic performance, sociology of the classroom, and the occupational and organizational context of teaching.

Research/Issues in Teacher Education I

Dr S Gopinathan

The course aims to acquaint students with the diversity of research in teacher education. It seeks to provide for reading in and discussion of the crucial concerns in teacher education and present a sample of work from different theoretical traditions.

Content: Models/paradigms of teacher education; curriculum of teacher education; pre-service and in-service education; teacher profiles; role and status of teachers; teacher supply and demand; teaching effectiveness; problems of theory and practice; innovations and trends in teacher preparation.

Research/Issues in Teacher Education II

Dr S Gopinathan

The course aims to acquiant students with a wide range of issues in teacher education.

Content: Teacher education: whose responsibility? Should teachers be well educated or highly skilled? Would extended teacher education produce more competent teachers? Teacher stress: myth or reality? Is teaching a profession? Teacher selection: validity of criteria? Does a teacher's expectations and intentions influence classroom performance? Supervision of teaching practice. Teacher apprenticeship and campus-based teacher education.

Research/Issues in Language Education I

Miss Amy Sobrielo (Co-ordinator)
Mr Robert Yeo

The course introduces the students to the field of language studies
and focuses on the more crucial issues in language education pertinent
to the Singapore situation.

Content: Psycholinguistic theories and language education; approaches
to language teaching and methodology; sociolinguistic factors and
language education.

Research/Issues in Language Education II

Dr Ho Wah Kam (Co-ordinator)
Mr Oliver Seet

The course enables the students to develop an understanding of the
nature of classroom-centred language research and the methodologies
available. The focus of this course will be the design of language
education research and the methodological issues pertinent to such
research.

Content: Classroom-centred language education research; process-
product, experimental, observational, language acquisition studies;
studies accounting for differences in achievement among language
learners; research in language learning and acquisition; research in
language teaching methodology; research in language testing and
evaluation.

Research/Issues in Mathematics Education I

Dr Lim Suat Khoh (Co-ordinator)
Dr Wong Khoon Yoong

The course familiarizes students with the key issues in Mathematics
Education and enables them to examine the problems associated with
such issues.

Content: Cognitive development in mathematics education; concept and
principle learning; curriculum and instruction; research on attitudes
towards mathematics; mathematical problem solving; skill learning;
computers in mathematics education; teacher education; individual
differences and the learning of mathematics.

Research/Issues in Mathematics Education II

Dr Lim Suat Khoh (Co-ordinator)
Dr Wong Khoon Yoong

The course familiarizes students with the research areas and methodologies in mathematics education and enables them to implement a small scale research project in mathematics education.

Content: Survey, experimental, case studies with respect to clinical investigations, classification of errors, testing of attainment, effects of certain instructional procedures, etc, as applied to research in mathematics education.

Research/Issues in Science Education I

Mrs Lam Yoke Yeen (Co-ordinator)
Mrs Ruth Chellapah
Mr Yeo Keng Hoe

The course enables students to review the history of science education and curriculum change, to discuss various approaches in science teaching, evaluation practices and teacher accountability and to examine science educational practices.

Content: History of science education and curriculum change; activity-based science programme; individualization in science instruction; creativity and problem solving in science education; scientific inquiry and the teaching of science; scientific, psychological and sociological theories that influence science educational practices; attitudes of pupils to science education; factors affecting achievement in science; evaluation of achievement in science; accountability of science teacher.

Research/Issues in Science Education II

Dr Chin Long Fay (Co-ordinator)
Dr Chia Lian Sai
Dr Diong Cheong Hoong

The course familiarises students with the nature and scope of research in science education, and develops their skills for critical analysis and evaluation of research in this area.

Content: The research literature in science education; the domains of research in science education; research designs, methods and strategies; problems and issues in conducting research in science education; critiques of selected research studies.

Research/Issues in Social Studies Education I

Mr Yee Sze Onn (Co-ordinator)
Mrs Christine Loh

The course provides students with an overview of the issues and types
of research in the field of geographic education.

Content: The nature of geography; integration and the geography
curriculum; decision-making process in geography; curriculum change and
syllabus reconstruction; methodological issues; problems in geography
learning; issues in the evaluation of student achievement, of teachers and
geography programmes.

Research/Issues in Social Studies Education II

Dr Then Lian Mee (Co-ordinator)
Mr Wilson Jacob

The course enables students to understand the assumptions about the
pupil, education, learning and society in history education and to
examine their implications for teaching and learning history.

Content: Nature and purpose of history; issues concerning history
education; political and moral issues in history education; issues
concerning content and organization, pedagogic issues and learning
processes in history education.

ANNEX A

GUIDELINES FOR PREPARING RESEARCH BRIEF

Applicants seeking admission to the Master of Education
Programme are required to submit a research brief together with the
application form. The research brief is to inform the selection board
of the applicant's intended area of research study. It should include
the following information:

TITLE   The title should indicate clearly the area of study.

PROBLEM   State the problem to be studied in the form of
specific questions which the proposed study will try to answer.

SIGNIFICANCE OF THE STUDY   Justify the need for or the
educational significance of the proposed study. Indicate in what
way(s) the findings of the study may enhance the understanding of
educational concerns or may help to improve educational practices
(management, instruction, curriculum, etc).

METHOD   Describe briefly how information and data will be
obtained: What types of pupils, teachers, etc, will be involved in
data collection? What data collection devices (i.e. questionnaire,
tests, scales, etc) will be used? How will the data or information be
organized and analyzed?

REFERENCES   List the relevant journal articles or publications
referred to when preparing the research brief.

ANNEX B

PRESENTATION OF RESEARCH PROPOSAL

The approval of a research proposal marks the completion of Part I of the M Ed programme. Part II of the M Ed programme entails the implementation of the proposed research leading to the submission of a dissertation.

The candidate should submit six copies of his research proposal through the supervisor to Head/Postgraduate. The student will be informed through the supervisor the date, time and place for the presentation.

For presentation, the candidate should be accompanied by a fellow-student who will act as a scribe and take notes of the proceedings. The use of a tape-recorder is allowed.

The actual presentation begins with the candidate outlining the main points of his proposed research. Comments and suggestions from the members of the Proposal Hearing Committee are to be noted by the candidate and his supervisor.

Although the presentation is a formal process in that the approval is being sought for the implementation of the proposed research, it is at the same time an opportunity for the candidate to avail himself of the collective experience of the Committee.

Within one week after the presentation, the candidate is to submit through his supervisor to Head/Postgraduate, the notes of the proceedings with the following inclusions:

1. The amended dissertation/thesis title, if any.

2. Suggestions made by the Committee that have been accepted by the candidate and his supervisor.

3. Suggestions made but not accepted, after due consideration, by the supervisor and the candidate.

4. Time-frame (in weeks) for the implementation of research, dissertation writing, and the expected date of submission to the examiners.

The candidate is also expected to deposit a copy of his proposal, with the notes of the meeting, at the IE Library.