

TRAINING FOR INCREASED PUPIL-TEACHER RATIOS

PROJECT IMPACT: ROLES AND ROLE EXPECTATIONS AND THEIR IMPLICATIONS FOR TEACHER TRAINING

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ROLES AND DUTIES

Identifying the Expected Outcomes of Learning:

i Duties of Module Writers:

- a. To be familiar with the complete primary level curriculum prescribed by the Ministry of Education.
- b. To translate the goals and broad objectives for each subject area in the prescribed curriculum into an integrated and sequenced continuum of content and skills.
- c. To undertake task analyses or job analyses of the goals and broad objectives on the basis of the sequenced and integrated continuum.
- d. To translate these goals and objectives into specific measurable terminal learning objectives.
- e. To divide the integrated and sequenced continuum into a basic path and an advanced path on the basis of the rationale for the division.

ii Duties of Instructional Supervisor (IS):

- a. To point out the specific learning objectives of each lesson and of each module to the learner prior to the start of the learner's or the group's learning activity.
- b. To emphasize to the learners the importance of the objectives in leading them through a series of learning activities.
- c. To ensure that the learners follow the sequence in the basic path.

Assessing the Learner's Capacity to Learn a Specific Task:

i Duties of Module Writers:

- a. To prepare tests of varying difficulty to be given to the learners at the start of the school year.
 - b. To prepare appropriate tests to determine the learner's readiness for the lesson.
 - c. To prepare appropriate remedial activity for those learners who do not adequately possess the needed entry behaviour.
- ii Duties of Instructional Supervisors:
- a. To administer tests whose results can serve as a basis for the grouping of pupils for a particular learning level.
 - b. To group pupils by learning levels on the basis of the results of the pre-tests.
 - c. To assist the learners in the necessary remedial activity to attain the needed entry standards.

Selecting Strategies, Activities and Materials for the Learning Modules:

- i Duties of Module Writers:
- a. To choose the appropriate material for a programmed teaching lesson.
 - b. To choose the appropriate learning strategy for transition learning, peer group learning and/or self-instruction.
 - c. To choose the proper visual materials and objects to go with a programmed teaching lesson or a peer learning, transition or self instructional module.
 - d. To decide on the forms and kinds of community resources to use in order to facilitate the learning activity.
 - e. To write the modules in a language level suited to the learners' level.
 - f. To present the learning activities in situations that are relevant to the day-to-day activities of the learners.
 - g. To write the radio lessons which introduce the programmed teaching lessons in language and reading.
 - h. To prepare the script to be used by the voice model for the radio lessons.
 - i. To design the procedures for transition learning, peer learning, and self-instruction.
 - j. To design and develop tutorial guides to use for each module or for a specific learning strategy.
 - k. To design and develop drill exercises for the skill practice period to enable the learners to internalize literacy and numeracy skills.

ii Duties of Instructional Supervisors:

- a. To provide the module writers with a comprehensive list of community resources, both human, institutional and material which could be used for specific, learning tasks.
- b. To offer suggestions to the module writers on other appropriate strategies and techniques.

Managing and Organizing Learning:

i Duties of Instructional Supervisors:

a. Grouping pupils:

1. To organize learning groups for programmed teaching, transition learning and peer group learning on the basis of the children's rate of progress, their closeness to each other, and on the proportion of the sexes.
2. To organize these small groups into families in order to provide each member with a feeling that he belongs and that he can go to the older members of his group for assistance.

b. Scheduling Learning Activities:

1. To schedule activities by one-hour periods.
2. To make sure that the schedules are followed.
3. To adjust the daily schedule for the $\frac{1}{2}$ day visit per week of the itinerant teacher.
4. To adjust peer group schedules so that community resource learning can take place as arranged by the Field Co-ordinator.

c. Keeping Track of Pupils' Absences:

1. To take note of pupils who make excessive absences in order to provide such pupils with necessary assistance to speed up their progress.
2. To encourage peer group members to follow up the absences of other members.
3. To inform the Field Co-ordinator of pupils making excessive absences.

d. Attending to the Needs of pupils and groups for Instructional Materials and Facilities.

1. To ensure that the Aide has made the necessary learning places, equipment and materials available to the pupils whenever needed.
2. To inform the Field Co-ordinator of the needs for equip-

ment repair and maintenance and for facilities and materials.

3. To make the necessary suggestions to the Aide for needed improvements of materials and facilities at the Learning Resource Centre.

e. Monitoring Learning Activities

1. To visit each learning group at least five minutes each hour to observe and help.
2. To ensure that the programmed teachers follow the item programme specified for the lesson.
3. To ensure that the older pupils follow the procedures for transition learning or peer group learning.
4. To give positive reinforcement to pupils, programmed teachers, transition learners, and peer group learners while correcting their weaknesses and deficiencies.
5. To ensure that the group and individual contracts for older pupils are appropriate to the learners' abilities.
6. To enter the weekly contract progress of older pupils.
7. To provide incentives for the successful completion of the contracts.
8. To provide immediate feedback to the Field Co-ordinator and the Instructional Co-ordinator on problems in the pupils' learning activities.
9. To ensure that the 15-minute practice period at the end of each one-hour period is followed.

ii Duties of I.S. Aides:

- a. To make ready all materials needed by pupils in programmed teaching and/or peer group learning and to issue them to the pupils.
- b. To keep records of pupils' attendance and to inform the IS of pupils who are absent.
- c. To assign learning places for programmed teaching and peer group learning.
- d. To keep records of instructional materials, facilities and equipment delivered to the Learning Centres and to keep them within easy access of pupils.
- e. To inform the IS of inadequacy of supplies and facilities and the Learning Resource Centre.
- f. To maintain records of pupils' group and individual progress contracts and to inform the IS of pupils falling behind schedule.
- g. To maintain records of tutors' attendance.

- c. To monitor the conduct of learning activities; improving procedures as necessary.
- d. To train Level 3 pupils who have completed the programmed teaching lessons in the procedures for transition learning.
- e. To practice positive reinforcement with programmed teachers, peer learners, IS Aides and with IS's.
- f. To review records of pupils' contracts and completions as a basis for the discussions with IS's.
- g. To assist the IS's in the preparation of schedules of daily activities.

vi Role Expectations of the Field Co-ordinator:

- a. To ensure a sufficient supply of learning materials, tools and facilities at the Learning Resource Centres.
- b. To maintain and repair equipment as soon as its malfunction is reported.
- c. To train the secondary students, community members and parents as tutors.
- d. To identify the resource persons and arrange for their meeting with the transition or peer group learners in connection with a learning task.

iii Duties of Tutors:

- a. To maintain schedule attendance.
- b. To follow up post-test results, assisting the pupils who failed to meet the criteria for mastery learning.
- c. Whenever possible, to assist those doing self-instruction at home.
- d. To assist in tutoring transition learners whenever assigned by the IS.
- e. To follow the tutorial guides for each module.
- f. To practice positive reinforcement with each learner.

iv Duties of Programmed Teachers:

- a. To attend to their programmed teaching assignments regularly.
- b. To check programmed teaching materials received from the IS Aide and to return them after use.
- c. To conduct programmed teaching in the assigned learning place or kiosk.

- d. To single out the slow learners in the group and provide them with remedial instruction during the second half of the one-hour period.
- e. To conduct programmed teaching according to the specified item programme.
- f. To make a report of the group's progress during the period to the next programmed teacher using the prescribed form.
- g. To inform the IS of any difficulties of the learners.
- h. To inform the Aide and the IS of any missing materials in the kit and of any equipment that needs repair.
- i. To inform the IS of the group's readiness for the module post-test.
- j. To provide positive reinforcement for the pupils.

v Duties of Instructional Co-ordinators:

- a. To train the older pupils in the different item programmes for programmed teaching and to provide an on-going supervision for programmed teachers.
- b. To train the older pupils in the procedures for transition learning, peer learning and self-instruction.
- c. To monitor the conduct of learning activities; improving procedures as necessary.
- d. To train Level 3 pupils who have completed the programmed teaching lessons in the procedures for transition learning.
- e. To practise positive reinforcement with programmed teachers, peer learners, IS Aides and with IS's.
- f. To review records of pupils' contracts and completions as a basis for the discussions with IS's.
- g. To assist the IS's in the preparation of schedules of daily activities.

vi Duties of Field Co-ordinators:

- a. To ensure a sufficient supply of learning materials, tools and facilities at the Learning Resource Centres.
- b. To maintain and repair equipment as soon as its malfunction is reported.
- c. To train the secondary students, community members and parents as tutors.
- d. To identify the resource persons and arrange for their meeting with the transition or peer group learners in connection with a learning task.

- e. To practise positive reinforcement with Aides, IS's, tutors, community resource persons, peer groups and programmed teaching groups.
- f. To establish and maintain itinerant teaching schedules in each Learning Centre.
- g. To contact parents of pupils who have incurred absences beyond the dates specified in the leave-of-absence form.

vii Duties of Itinerant Teachers:

- a. To conduct itinerant teaching activities for each Learning Centre for one-half day each week.
- b. To train the elder pupils in group activities in physical education, arts, music and scouting.
- c. To supervise the elder pupils who train the younger members in the family.
- d. To initiate community programmes intended to present the pupils' works in arts, music and scouting to the parents, at least twice during the school year.

Evaluating the Learners' Progress:

i Duties of Module Writers:

- a. To prepare the criterion-referenced end-of-year post-tests.
- b. To prepare the criterion-referenced module post-tests and block post-tests.
- c. To revise the tests on the basis of feedback from the field.
- d. To prepare remedial materials for all modules for all levels.

ii Duties of Instructional Supervisors:

- a. To note pupils' difficulties in their learning modules.
- b. To verify pupils' readiness to take the module post-test, before it is given.
- c. To supervise the testing activities to ensure the reliability of individual results.
- d. To analyse the post test results in order to determine if each pupil has achieve the mastery learning criteria.
- e. To inform the pupils and the parents of the results of the post-tests through the Pass Slips.

- f. To assign older pupils to tutorial activities; or to undertake the tutorial activity herself on the basis of the seriousness of the pupils' weakness.
- g. To assign programmed teachers to assist particular pupils in their groups.
- h. To conduct item analysis of block tests in order to determine the nature and extent of remedial activities.
- i. To review the pupils' Modular Accomplishment records in order to identify pupils and/or groups who are falling behind their contracts.
- j. To assign appropriate activities for the more and the less able pupils during the "individual pursuit" period.

iii Duties of I.S. Aides

- a. To issue and monitor module and block post-tests.
- b. To score post-tests.
- c. To inform the IS of the results of the post-tests.
- d. To fill out the Pass Slips which inform the pupils and the parents of the child's successful attainment of the criteria for mastery learning for a given module.
- e. To maintain records of group and individual progress.
- f. To notify the IS of any pupil or group that has not kept up with its schedule per contract.

iv Duties of Levels 4 to 6 Pupils:

- a. To help each other in the peer group to prepare for the module post-tests and block post-tests.
- b. To approach the IS for assistance whenever the peer group stumbles upon a learning problem.
- c. To utilize the "individual pursuit" period for remedial activities on the core modules.
- d. To identify the younger pupils in programmed teaching who need remedial assistance.
- e. To give tutorial assistance to those pupils who are identified as slow learners in programmed teaching activities.
- f. To go to a tutor's home in the neighbourhood whenever assistance is needed.
- g. To use the testing carrels for post-tests in order to ensure

independent results.

v Duties of Tutors:

- a. To attend to their tutorial assignments regularly.
- b. To tutor Levels 4 to 6 pupils on the basis of the post-test results.
- c. To assist the slow learners in the peer group during the "individual pursuit" period.

vi Duties of Field Co-ordinators:

- a. To see to it that all Centres are adequately supplied with post-tests and practice materials.
- b. To train secondary students and community volunteers as tutors.

Administering and Supervising a Cluster of Learning Centres:

i Duties of the Field Co-ordinator: (With the Assistance of the Instructional Co-ordinator).

- a. To be responsible for the overall implementation of the learning management system in a cluster of five to ten Learning Centres.
- b. To monitor and evaluate IS behaviour on the basis of the IMPACT model.
- c. To train new IS's.
- d. To conduct the in-service training of the IS's, IS Aides, Tutors and Itinerant teachers.
- e. To build with the Local Steering Committees the needed learning kiosks and to inform them of needed repairs at the Learning Centres.
- f. To establish a system of routine and records to facilitate the functions of the Learning Centres.
- g. To conduct an on-going parent education programme in order to continually bridge the gap between the Learning Centres and the Community.
- h. To practise positive reinforcement with the IS's, IS Aides, Tutors, Programmed Teachers, pupils and parents through a system of rewards and incentives.
- i. To establish and maintain itinerant teaching schedules.

- j. To provide leadership in the search for needed resources from the community.
- k. To assist the IS's in the preparation of schedules for the learning activities of different groups of pupils.

2. IMPLICATIONS FOR THE IN-SERVICE AND PRE-SERVICE TRAINING OF THE STAFF

A. Limitation of These Listings:

These perceived needs in terms of knowledge, attitudes, and skills of the professional members of the staff (the IS's, the Module Writers, the Field Co-ordinator, and Instructional Co-ordinator) admits the risk of their being socio-culturally biased and of their inadequacy or incompleteness.

B. Certain Necessary Prerequisites:

- i There is a need for continuous in-service training of teachers to help them internalize the new concepts, attitudes and skills.
- ii The need for in-service training is not only for the teachers but also for the school administrators and supervisors, the guidance counsellors, the budget and finance officer and other members of the schools' administrative staff.
- iii There is a need to re-orient those who train the teachers to the shift from the teacher-teaching process to the learner-learning process for the obvious reason that one cannot give what he does not possess.
- iv Simultaneous with number iii, is the need to restructure the teacher training colleges to become relevant to the changed structures in the lower levels.
- v One of the chief features of the restructured practices of the teacher training institutions would be the emphasis on closer and more frequent contacts between the pre-service teachers and the pupils whom they are preparing to teach.

C. Expected Outcomes of the In-Service or Pre-Service Programme for the Professional Staff of IMPACT Management System:

- i Working Knowledge of:
 - a. the philosophy, characteristics, components, and activities of the new learning management system;
 - b. the nature of the learner - both as a citizen of the human universe and as a unique personality in the context of a particular socio-cultural environment;

- 1.) that every child exhibits the innate and unending need to know, independent of adult intervention;
 - 2.) that each child displays his innate need to know that he is not threatened;
 - 3.) that the child's self-confidence is directly related to his capacity to learn;
 - 4.) that the child learns and develops intellectually at his own rate and style;
 - 5.) that children pass through similar stages in intellectual development at their own rate, in their own way and in their own time;
 - 6.) that each child is different anatomically, physiologically, and biochemically from another.
- c. the nature of the learning process:
- 1.) that what a student learns, he must learn by himself;
 - 2.) that he learns more if each step is immediately reinforced positively;
 - 3.) that full mastery rather than partial mastery of each step is more meaningful;
 - 4.) that when he is given responsibility for his own learning he is more highly motivated; he learns more and retains more;
 - 5.) that a learner can learn 90% of a given task provided the factors or variables of time, aptitude, quality of instruction, ability to understand, and perseverance are taken into consideration in favour of the learner.
- d. the role of the environment on the nature of the learner and the learning process: the child is as intelligent as his environment has allowed his innate capacity to develop;
- e. the taxonomy and construction of specific measurable learning objectives;
- f. the components of task and job analyses;
- g. the principles and mechanics of criterion-referenced evaluation instruments;
- h. the sources and methods of inquiry for knowledge: the varied strategies, procedures and techniques for self-directed or small-group directed learning activities,
- i. the philosophy and principles of individualized learning, mastery learning and programmed instruction,

- j. principles and techniques in the management of learning;
 - k. broader knowledge base to enable them to prepare differentiated learning materials and to facilitate and monitor pupils' learning efficiently;
 - l. strategies and techniques in organizing and managing learning;
 - m. the different models for the physical arrangement of the resource centres and the materials storage areas which facilitate movement of the learners and easy retrieval of learning materials;
 - n. models and designs for routine and record keeping to facilitate learning centre functions;
 - o. current curriculum development practices, including evaluation techniques and procedures and revision of materials.
- ii Attitudes:
- a. Openness to planned change and the willingness to give up old habits and try new ones;
 - b. Recognition of the value of deep sense of commitment to one's task; of industry and diligence; of creativity and initiative;
 - c. Sensitivity to the needs of the learners, the problems of the parents and the community as a whole, their differing orientations and perspectives; and the needs and aspirations of colleagues, and superiors;
 - d. acceptance of the validity and legitimacy of media, human resources and other community resources as sources of knowledge, in addition to books;
 - e. acceptance of the responsibility to make decisions relevant to the learning activities in the learning centres;
 - f. acceptance of the non-professional members of the learning centre team as partners in the common task of developing the learner;
 - g. appreciation of the value of team work;
 - h. recognition of the role of the socio-economic and cultural environment in personality formation and in the learning process;
 - i. acceptance of the child's experience outside of the school as legitimate knowledge;
 - j. acceptance of the value of research and development as sound basis for decisions on solutions to the nagging problems surrounding the learning process - as opposed to dependence on political decisions and authority;

- k. recognition and acceptance of the changed role of the teacher as the manager, supervisor and/or facilitator in the learner-learning situations, rather than as the sole dispenser of information and, at times, as entertainer;
- l. recognition and acceptance of the importance of adequate and systematic routine and record keeping procedures to facilitate learning centre functions;
- m. recognition and appreciation of the importance of keeping oneself abreast of current curriculum ideas and materials;
- n. recognition and appreciation of practice reinforcement.

iii Skills in:

- a. task and job analyses and in writing specific learning objectives;
- b. constructing valid and reliable learning evaluation instruments which are criterion-referenced;
- c. interpersonal relationships with parents, community members, tutors, aides and programmed teachers in monitoring the activities of the learners;
- d. using audio-visual aids to suit the objectives and the strategy, as well as the level of the learner;
- e. using concepts and skills in the learning materials that suit the level of the learner;
- f. using a teaching strategy/approach and techniques that suit the objectives, the tasks, and the level of the learners;
- g. observing simplicity and clarity in the use of the language of instruction: a second language to the learners;
- h. writing correct grammatical sentences in the learning materials;
- i. using proper built-in remedial measures for each learning module;
- j. relating concepts to real-life situations;
- k. using learning activities that foster independent thinking: reflective, analytic and synthetic thinking; creativity and sensitivity, and inter-personal communication and interaction skills;
- l. providing for a variety of instructional activities to prevent boredom;
- m. monitoring programmed teaching, peer learning, and the tutorial activities;

- n. establishing routine activities in the organization and management of learning activities and in record keeping;
- o. conducting pre-assessment activities and post learning evaluation activities;
- p. coping with unexpected needs and problems;
- q. oral proficiency in the medium of instruction which is a second language to the learners and to the teachers;
- r. diagnosing pupils' weaknesses, problems and difficulties;
- s. organizing the physical facilities and materials to facilitate learners' movement and retrieval of materials;

Expected Outcomes of the Short-Term and Specific Training Activities for Aides, Tutors and Programmed Teachers:

- i Expected Outcomes for the IS Aides' Training
 - a. Knowledge of the philosophy, characteristics, components and activities in the management of learning;
 - b. Knowledge of his place in the totality of the learning management system: his role expectations and his relationship to the professional staff;
 - c. Knowledge of the school rules and expectations;
 - d. Knowledge and skill in the procedure for record keeping;
 - e. Knowledge of and skills in the use of the different learning materials and in the operation of equipment;
 - f. Knowledge of and skill in arranging the learning materials, equipment and facilities to allow for easy retrieval of the same by the learners;
 - g. Recognition of the importance of his role in the totality of the learning process, to the learners, to the IS's and to the administrators and supervisors;
 - h. Recognition and appreciation of positive reinforcement with programmed teachers and pupils, and peer group learners;
 - i. Skill in interpersonal relationship with the tutors, programmed teachers, pupils, peer learners, IS's, and the administrators and supervisors.
- ii Expected Outcomes for the Tutors' Training:
 - a. Knowledge of the philosophy, characteristics, components

and activities of the new learning system;

- b. Knowledge of his place in the totality of the learning management system: his role expectations and relationships with all members of the team and with the pupils;
- c. Knowledge of the school rules and expectations;
- d. Recognition of the importance of his role in the success of the child's learning and of the entire management system;
- e. Recognition and appreciation of positive reinforcement with the pupils and other learners;
- f. Skill in interpersonal relationship with the pupils and other learners, the Aide, and the professional members of the team.
- g. Skill in the use of the procedures for tutorial activities and of the remedial materials.

iii Role Expectations of Programmed Teachers:

- a. Knowledge of the philosophy, characteristics, components and activities in the management of learning;
- b. Knowledge of the different item programmes used to deliver the literacy and numeracy skills to the learners;
- c. Knowledge of the use and/or operation of programmed learning materials and equipment;
- d. Skill in the use of the prescribed item programme to every programmed lesson;
- e. Skill in interpersonal relationship with the IS Aide, the pupils and the tutors;
- f. Skill in conducting remedial activities and using the remedial materials for the slower learners;
- g. Recognition of the importance of his role in the younger pupils' acquisition of the basic literacy and numeracy skills;
- h. Recognition and appreciation of positive reinforcement with the pupils.

IMPACT MANAGEMENT SYSTEM

Curriculum Development: Integrated Continuum
(Modules, Worksheets, Post-Tests, Visual Devices)

Core Path

Advanced Path

Programmed Teaching Modules
Levels 1 - 3

Item Programmes

Reading
Item Programme - RIP

Reading Item
Programme for Group - RIPG

Simple
Item Programme - SIP

Simple Item
Programme for Group - SIPG

Writing
Programme - WG

Group Teaching
Programme - GTP

Word Sounding
Programme for Group - WSPG

Review
Game Programme

Chain Programme
for Problem Solving

RIPG
Continuum Text

CIPG (RIP + SIPG)

CIPG (RIP + RIPG)

Rounds Programme

Transition Learning
Modules
Level 3

Peer Learning/ Self-Instruction
Modules
Levels 4 - 6

Learning how
to learn

Programmed
teaching

Transition
learning

Peer Group
learning

Self-instruction

Basic Skill Practice
Buddy System

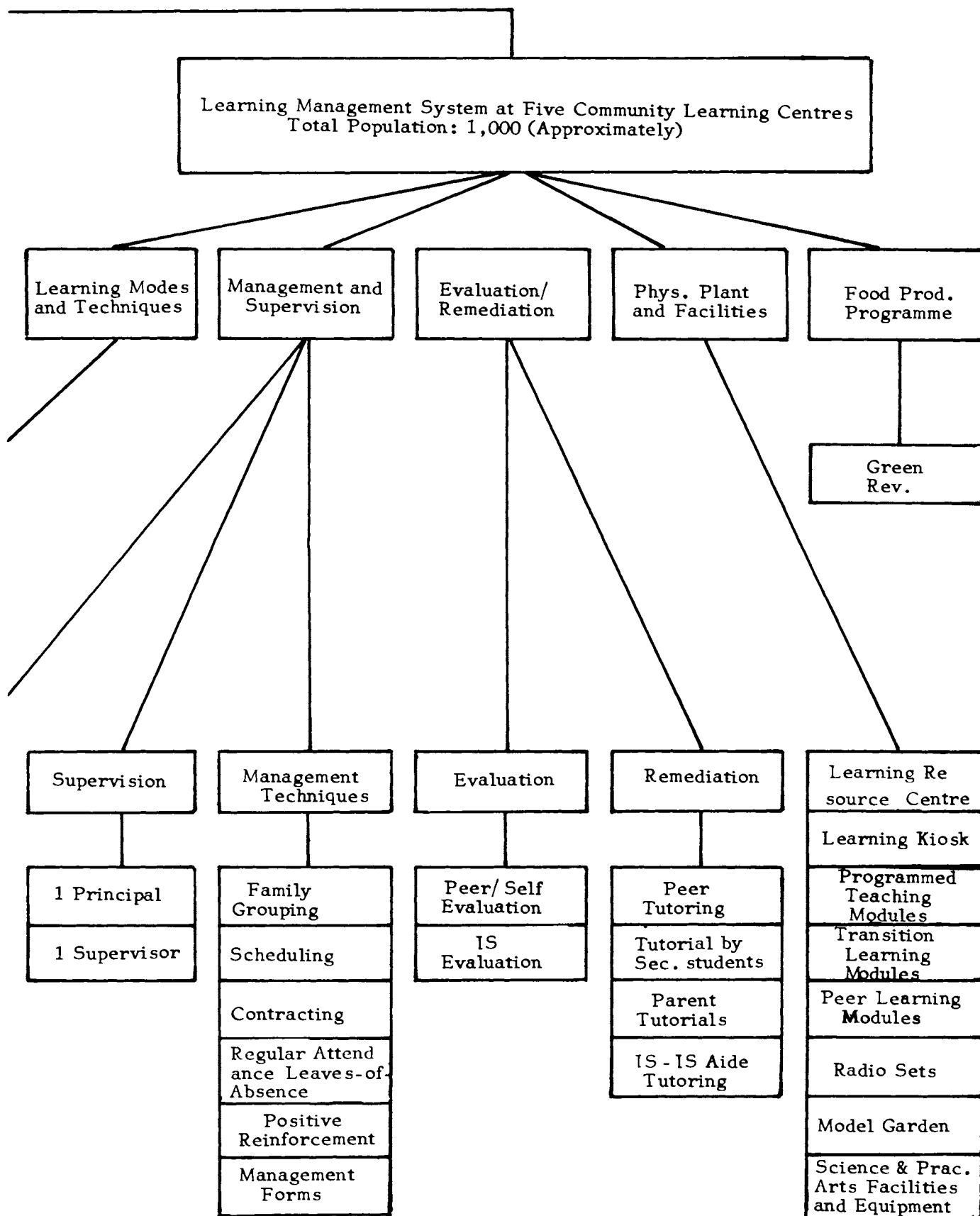
Skill Training by
Comm. Resource
Person

Itinerant Teaching for
PF, Scouting, Arts
Music

Management

9 Instructional
Supervisors

5 Teacher Aides



APPENDIX 2

TEN COMMANDMENTS OF HUMAN RELATIONS

- i Speak to people. There is nothing as nice as a cheerful word of greeting.
- ii Smile at people. It takes 72 muscles to frown, only 14 to smile.
- iii Call people by name. The sweetest music to anyone's ears is the sound of his own name.
- iv Be friendly and helpful. If you would have friends, be friendly.
- v Be cordial. Speak and act as if everything you do were a genuine pleasure.
- vi Be genuinely interested in people. You can like everybody if you try.
- vii Be generous with praise - cautious with criticism.
- viii Be considerate with the feelings of others. It will be appreciated.
- ix Be thoughtful of the opinion of others. There are three sides to a controversy - yours ... the other fellow's ... and the right one.
- x Be alert to give service. What counts most in life is what we do for others.

APPENDIX 3

BIBLIOGRAPHY

1. Bechtol, William. Individualizing Instruction and Keeping Your Sanity. L'Follet Publishing Company: Chicago, 1973.
2. Bloom, Benjamin. "Mastery Learning". Mastery Learning Theory and Practice, Block, James (ed.), Holt, Rinehart and Winston, Inc., New York: 1971.
3. The Teacher and Educational Change: A New Role, Vol. I Organization for Economic Co-Operation and Development 1974.
4. Mante, Rosetta. "The Role of Teachers in the IMPACT Delivery System", INNOTECH JOURNAL, Vol. II, No.1, June, 1978, pp.13-22.
5. IMPACT Brochure, INNOTECH Project IMPACT, Cebu City, June 1978.
6. A Guide to the IMPACT Learning System, SEAMEO Regional INNOTECH Centre, Quezon City, Philippines, April 1977.

INTRODUCTION TO LEAD PAPERS ON IMPACT

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Two films depicting project IMPACT in operation in the Philippines and Indonesia were shown. The films illustrate the following main ideas:

- (a) The need to consider seriously, because of the high cost of conventional schooling, an alternative form of schooling that meets the educational needs of the community and fits easily into the socio-cultural milieu of the area.
- (b) IMPACT necessitates a re-training of teachers to fit their new roles in the system as well as re-deployment of facilities, physical plant and learning materials.
- (c) The advantages of the scheme are a pupil-teacher ratio well in excess of conventionally acceptable figures. For example, in the Cebu experience, 12 teachers and 5 aides are managing 1000 pupils where earlier 55 teachers were required.
- (d) From 30% - 50% savings in cost can be shown.
- (e) In the first two grades an element of rote learning is involved in the learning of a second language.
- (f) An important outcome is that children learn how to learn.
- (g) Pupils of IMPACT tend to do better in research and experimentation than pupils taught in conventional ways.
- (h) The teacher is a facilitator of learning, not a dispenser of knowledge.
- (i) Constant curriculum revision is not needed and evaluation is built into the system.
- (j) Self-learning is introduced from Grade IV onwards.

Following the film, Dr Mante highlighted some of the aspects of project IMPACT among which were the following:

- (a) Project IMPACT is an outcome of the SEAMEO-INNOTECH programme.
- (b) IMPACT is an alternative delivery system for mass primary education in developing countries. None of the individual components of the IMPACT is new, but what makes it innovative and original is the way the components are woven together.

- (c) A cost analysis has revealed that IMPACT costs only 50% of conventional schooling.
- (d) Independent evaluation shows that IMPACT is superior at all the pilot sites to conventional schools.
- (e) The modules are not prepared by experts or teacher training college staff but by practising teachers.
- (f) IMPACT was intended for a rural setting but replication studies show that it tends to work better in a semi-urban or urban setting where more facilities are available.

DISCUSSION ON PROJECT IMPACT

Particular features of IMPACT that interested participants included:

(a) The system

IMPACT uses the prescribed subject syllabuses but analyses how the given objectives of these can be achieved through programmed instructional modules.

IMPACT requires only one large room as a resource centre. Learning spaces are in what are called learning kiosks which are huts built by the community. Thereby the savings in teacher and physical plant costs can be diverted to making learning modules. The modules are provided on a shared basis with one module for 6 pupils. The paper used is re-cycled mimeograph paper.

(b) Community participation

Project IMPACT makes use of the strength of the family institution in the Philippines. The older pupils are made responsible for the progress of the younger as in a family. The concept of the family in this context is that of an extended family. Parents participate in their children's learning and in providing for the needs of the school. Children can be supervised by the parents even though the literacy level is only 26%. The modules are colour coded so that parents can monitor the progress of their children from the colour of the modules being used. If a child bring the same colour of module over and over again it means that he is not progressing and his parents will know.

Parents are often invited to discuss community participation. The co-ordination of the parents' activities is the responsibility of the local steering committee.

(c) Discipline

To those used to an orderly formal class, IMPACT looks disorderly. Parents who are initially worried about this aspect are gradually made to understand that discipline has not suffered. They are also helped to see that education is not only the job of the teacher, but is the responsibility of parents as well.

(d) Teaching

Pupils in the high schools are used as aides because of the mandatory requirement that every high school pupil should do 120 hours of community service per year.

(e) Rote learning

Rote learning at Grade I and II level aims to achieve:

- (i) Decoding skills in the native language.
- (ii) Decoding skills in Pilipino.
- (iii) Literacy skills in English progressively through the first two years.
- (f) Children with special needs

Remedial work is provided for children who get behind and gifted children can progress at their own pace, completing elementary school in 5 instead of 6 years if they wish.

CONCLUSIONS CONCERNING IMPACT

Participants felt that project IMPACT might be faced with opposition in a situation where there is an over-supply of teachers. Project IMPACT appears to be heavily dependent on an infra-structure where hardware like duplicating machines and typewriters are freely available and such machines can be kept serviceable.

The fear was expressed that a fairly highly structured system such as IMPACT could reduce the degree of inter-personal relationship between the teacher and the child. It was also possible that the constraints on the teacher imposed by the system might limit the freedom and initiative of the teacher to experiment.

On the other hand, it was recognized that IMPACT ensures that the role of the teacher is changed from being a dispenser of learning to that of being a facilitator of learning which, in educational terms, is wholly desirable.

It was also appreciated that IMPACT was designed in the Philippines for a particular need and for a particular setting. Thus, while the intentions of project IMPACT and the circumstances that gave rise to it might not be entirely relevant and applicable to all countries in the Asian region, participants were agreed that the strategies and even the materials developed could very well be utilized to meet particular needs in some of the countries.