(7) Part-time Day and Evening Courses

An increasing number of technical institutions now provide part-time day and evening courses for people already working in the industries. In fact, some evening technical courses are even attended by people who work in non-technical professions during the day.

(8) Girls Education

A number of separate industrial schools exist for girls and instructions are provided in different handicrafts such as Embroidery, Weaving, Basketry, Toy-making, Drawing, Painting & Modelling, Fruit Preservation, Calico Printing etc. Such handicrafts enable the girls to add to their family income without the necessity of going to the factories. The general education required for admission to such schools is anything from the primary to the secondary stage. A number of colleges of Home and Social Sciences have recently been established and provide very useful courses for girls. Secondary stage is the minimum general education requirement for admission to such colleges. A copy of the prospectus of the College of Home and Social Sciences, Lahore is attached as Appendix IV.

The outline which I have presented gives you a brief account of the system of vocational and technical education in Pakistan.

2. Scheme for
The Vocational Training of Adults

(1) Objections

To assist in achieving and maintaining a balance between the national labour requirements in number, level and quality on one hand and the manpower resources, necessary for economic and social security of the

nation, on the other.

(2) Nature and Scope

The scheme is designed and planned to impart intensive training courses to adults under realistic conditions to fit them for employment in an occupation and to provide in so far as possible taking into account the national circumstances, industrial needs and interests of the workers - facilities and services for persons who,

(a) wish to acquire skill or who are obliged to change their occupation;

(b) are unemployed and are likely to secure re-employment in their own occupation and who to this end need training to enable them to maintain or refresh their skill; and

(c) wish to improve their skill.

The short term intensive nature of the training Scheme will prepare workers for employment in minimum time with levels of skills and knowledge which can be utilised by employers. With continued employment practice and experience, intensively trained personnel can become fully qualified in their occupation. This system of training is very suitable for adults who, because of natural responsibilities, cannot afford to undertake training for the lengthy periods required by other systems.

(3) Vocational Training

Authoritative definitions have been drawn up the International Labour Organization derived from the corporate wisdom of its tripartite structure, representing Government, Management and Workers of many countries concerning vocational training.

"This statement reads:-

> "The expression "Vocational Training" means any form of training by means of which technical trade or supervisory knowledge can be acquired or developed whether the training is given inside or outside an undertaking and includes retraining".

(4) Main Advantage of Training

The skills and knowledge of an experienced worker can be transferred most smoothly and speedily to inexperienced workers by systematic training. Such training promotes logical arrangements of subject matter and required definitions of standards skills and knowledge to be attained. These elements automatically tend to rise standards of workmanship.

(5) Number of Persons to be Trained

The number to be trained in each occupation should be calculated to meet three needs, viz.,

(a) Need to provide replacements to make good manpower wastage from employment due to disabilities, retirements, deaths;

(b) Need to expand the manpower force in an occupation to meet development plans and increase discovered in particular occupations.

The Employment service is developing procedures discovering the numbers employed in particular occupations. Establishment of training programmes can begin before total figures are evaluated. The basis of such beginnings would be need for a training programme and the numbers trained may be governed by ability to find employment for persons trained.

(6) Seating Capacity

It has been decided in the first instance to operate the Vocational Training Scheme having a total seating capacity of 125 seats on a national basis. Distribution and allocation of the seating capacity centre-wise and trade-wise is shown at Annexure.

(7) Employment and Placement

Trainees selected should possess the minimum physical and mental capacities required by occupation. Prescribed educational qualifications for enrollment are shown in Annexure II. The eligible age for enrollment in a Training Centre shall be from 18 years to 40 years of age.

Placement after training in employment shall also be the function of the Employment Service.

(8) Training Syllabus

A syllabus shall be a clear description of all skills and knowledge to be acquired by the trainees to fit him for productive employment. Preferably the syllabus shall be set out in a number of stages. The Trainee should be required to concentrate on one stage at a time and complete it satisfactorily before he can pass on to the other stage. Comparison between the time taken and the number of stages completed gives measure of the progress being made.

The contents of the syllabus shall include the basic elements required for different types of employment within the occupation.

(9) Period of Training

The duration of training will normally extend to 12 months. A candidate who already possesses a certain amount of skill, may however, reach the required standard in a lesser time and leave the Training Centre

after passing final trade test in less than the period prescribed for the trade.

(10) Concessions and Tuition Fee

Trainees may require economic assistance, therefore, to meet this condition, provision has been made as follows:-

(a) Refugee and Ex-serviceman trainees shall be paid a Stiped of Rs. 15/-p.m. by the Government.

(b) Civilian (non-refugee) shall have to pay Re. 1/-/. as admission fee and Rs. 2/-p.m. as tuition fee;

(c) Civilian trainees, resident in the Hostel, shall be required to pay Re.1/-p.m. as Hostel rent.

Facilities free of cost will be provided for games and recreation.

A P P E N D I X

Educational Qualifications Required for Admission At Training Centre, Lahore

Group	Trade or occupation	Minimum Educational Standard required
I Group	1) Draughtsman (Mechanical) 2) Electricians)	Matriculation or equivelent standard
II Group	1) Cutting and Tailoring 2) Die Sinkers	

Group	Trade or occupation	Minimum Educational Standard required
	3) Engine Artificers (I.C.)	Should have read upto Middle English standard.
	4) Jig & Tool Makers	
	5) Machinists	
	6) Milling Machine Operators	
	7) Pattern Makers	
	8) Turners	
III Group	1) Cabinet Makers	
	2) Carpenters & Joiners	
	3) Electroplators	
	4) Fitters	5th Class and should be able to do simple calculations in English figures
	5) Moulders	
	6) Painters & Decorators	
	7) Sheetmetal Workers	
	8) Weaving of Cotton & Art silk	
	9) Welders	
IV Group	1) Blacksmiths	4th Class or literate in their own language.
	2) Brass Casting	
	3) Wood Turners & Lacquer workers	

Note: (1) In the case of Electricians, the Educational qualifications may be relaxed upto 9th class passed.

(2) In the case of Technicians who possess Army Grade III certificate, the educational qualifications may be relaxed, if necessary.

P H I L I P P I N E S

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AIMS OF EDUCATION ACCORDING TO THE CONSTITUTION OF THE PHILIPPINES (Article XIV, Section 5)

All schools shall aim to develop:

a. Moral character

b. Civic conscience

c. Personal discipline

d. Vocational efficiency and to teach

e. The duties of citizenship

Fundamental Objectives as approved by the Board of National Education in conformity with the Philosophy and Mandate of the Philippine Constitution

1. To inculcate moral and spiritual values inspired by an abiding faith in God.

2. To develop an enlightened, patriotic, useful and upright citizenry in a democratic society.

3. To instill habits of industry and thrift and to prepare individuals to contribute to the economic development and wise conservation of the Nation's natural resources.

4. To maintain family solidarity, to improve community life, to perpetuate all that is desirable in our national heritage, and to serve the cause of world peace.

5. To promote the sciences, arts, and letters for the enrichment of life and the recognition of the dignity of the human person.

Minimum Requirements and Time Allotment
for the Elementary School Curriculum

Minimum Subject Area	Number of Minutes a Day		
	Grades I-II	Grades III-IV	Grades V-VI
I. Social Studies	40	50	50
II. Work Education	40	60	80
III. Health & Science	40	40	50
IV. Language Arts	110	110	120
V. Arithmetic	40	40	50
VI. Arts and Physical Education	40	40	50
TOTAL	310	340	400

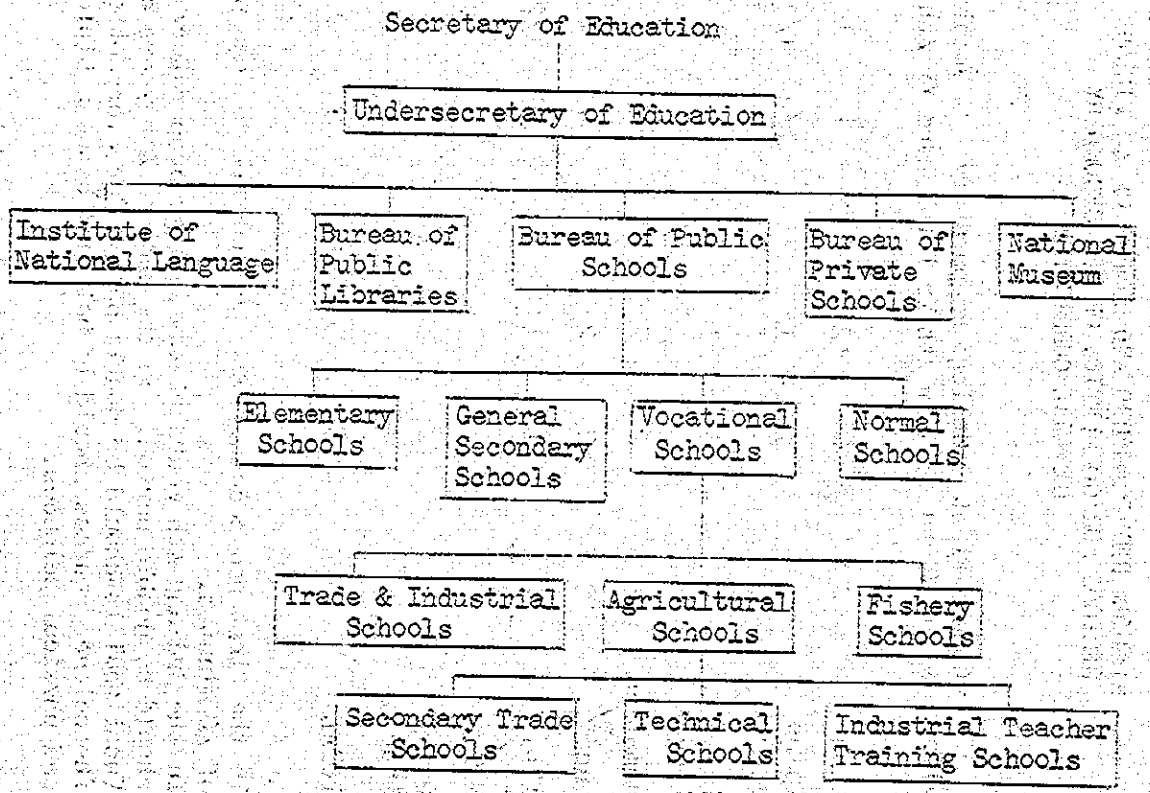
MINIMUM REQUIREMENTS AND NUMBER OF 40 MINUTE PERIODS FOR COMPLETION OF THE SECONDARY GENERAL CURRICULUM

Subjects	Common First & 2nd Years	College Preparatory 3rd Yr	4th Yr	Total	Vocational 3rd Yr	4th Yr	Total
English	2	2	2	6	1	1	4
Filipino Language	2	1	1	4	1/2	1/2	3
Social Science	2	1	1	4 b/	1	1	4
Mathematics	2	2	2	6	1	1	4
Science a/	2	2	2	6	1	1	4
Health, P.E. & P.N.T.	2	1	1	4	1/2	1/2	3
Work Experiences	4	-	-	4	4	4	12
TOTAL	16	9	9	34	9	9	34

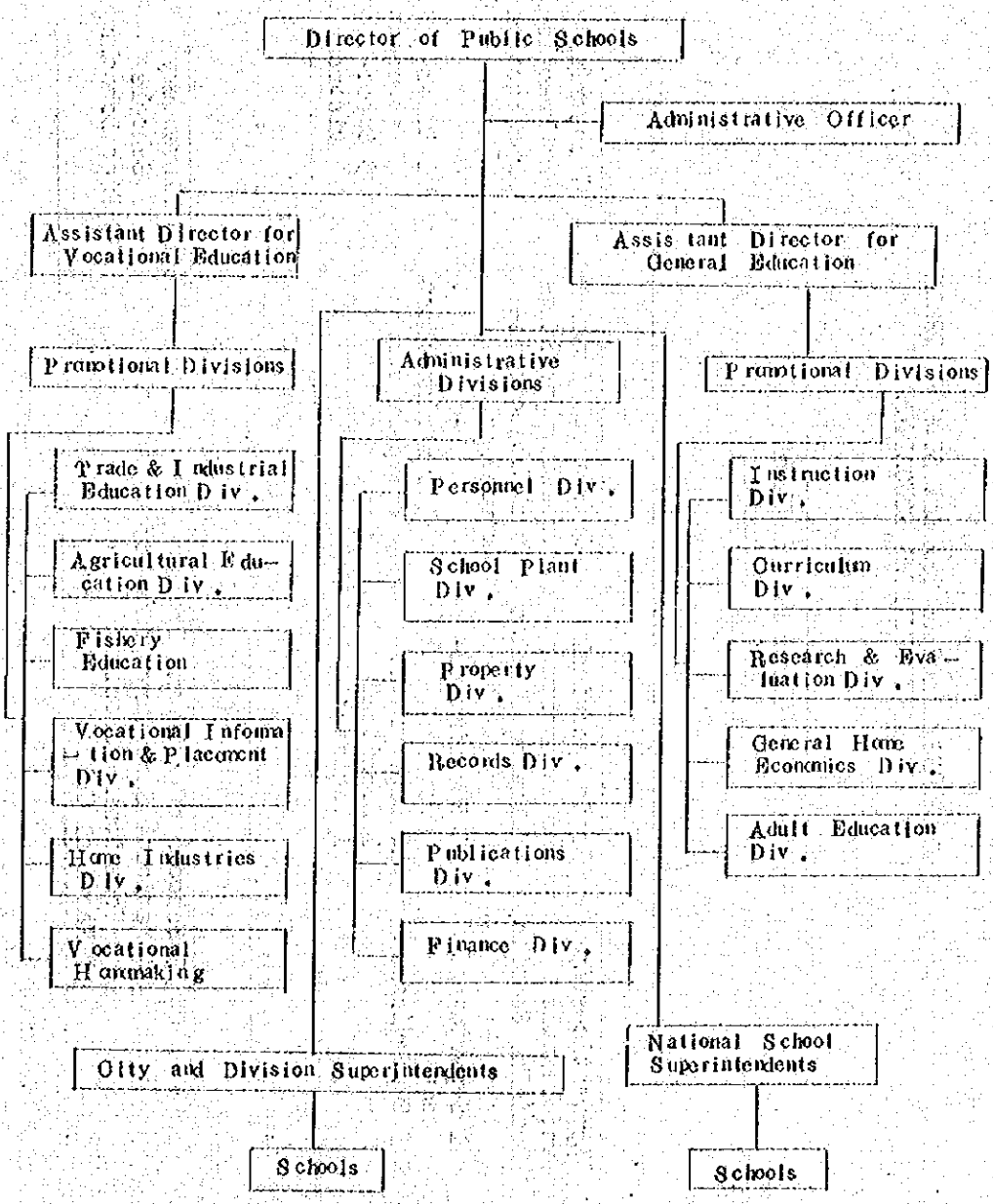
a/ In the first and second years, Science will be one period of 40 minutes.
In the 3rd and 4th years of the College preparatory it should be double period. In the 3rd and 4th years of the Vocational it should be double period for every other day. The science courses should be balanced between biological and physical sciences.

b/ These two periods may be English, Social Science or Mathematics. For non-technical colleges they should be elective in English or Social Sciences, for all others they should be in Mathematics.

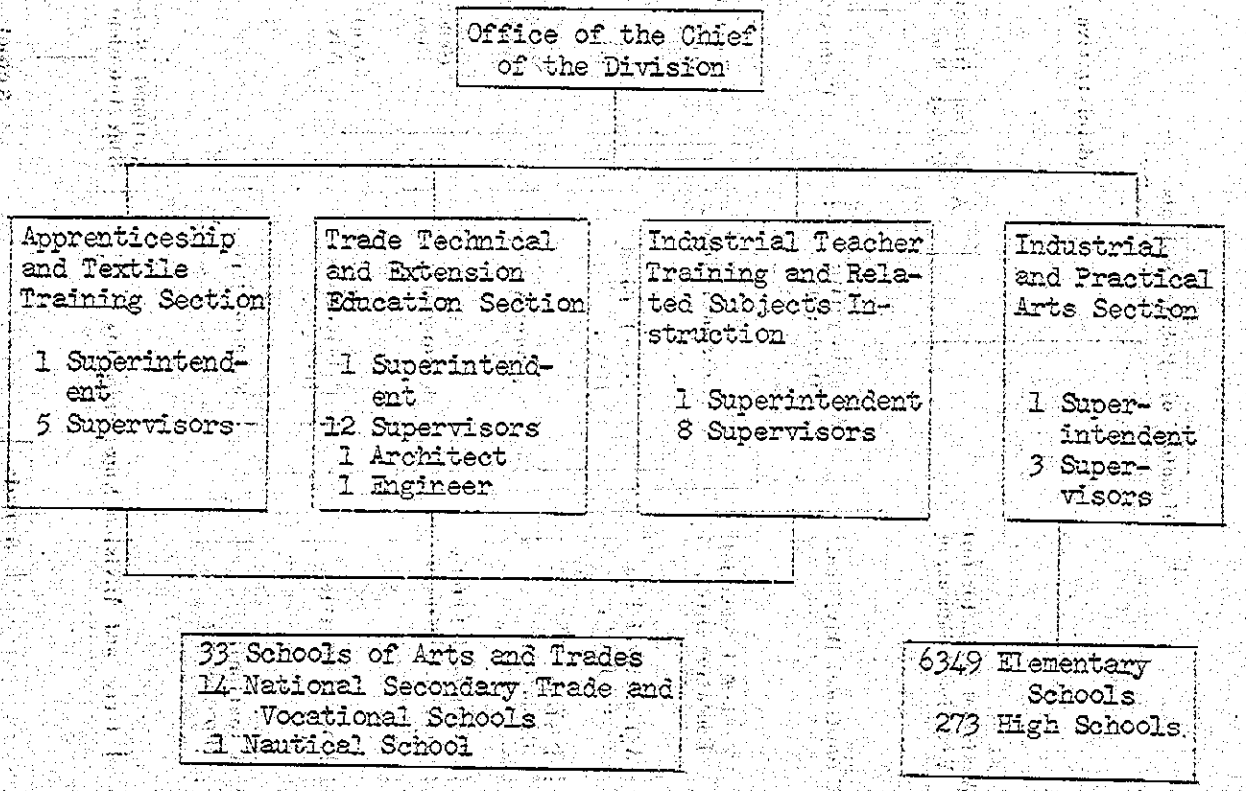
THE ORGANIZATION OF PHILIPPINE EDUCATIONAL SYSTEM



THE ORGANIZATION OF THE BUREAU OF PUBLIC SCHOOLS



THE ORGANIZATION OF THE DIVISION OF TRADE AND INDUSTRIAL EDUCATION



1. Trade and Industrial Education

(A) What it is

The trade and industrial education program is an integal part of the whole program of vocational education which trains people for trade and industrial pursuits. Occupations that deal directly with the designing, producing assembling, maintaining, servicing, and repairing or manufactured products not so classified as agricultural or professional are included in this phase of education.

(B) Its Objectives

(1) To provide pre-service training for effective entrance to trade and industrial pursuits

(2) To provide in-service or extension training for persons already employed in trade and industrial occupations with a view to upgrade their skills

(3) To train technicians, foremen, and leaders of trade and industrial pursuits

The development of the citizen worker as the cumulative of trade and industrial education who has the ability to:

(1) Use the common language of intercourse

(2) Do some job which the community needs

(3) Conserve his health and keep himself physically fit

(4) Adjust himself to his natural environment

(5) Cooperate with others

(6) Become a self-supporting and a self-reliant citizen

(C) Its Curricula

(1) The two year special trade curriculum

(2) The four-year secondary trade curriculum

(3) The three-year (collegiate level) trade-technical education curriculum

(4) The four-year (collegiate level) teacher-education curriculum in industrial arts

(5) The four-year (collegiate level) teacher-education curriculum in industrial education

(D) Major Courses offered for Specialization in Secondary Trade and Special Trade Curriculums

(1) Automotive mechanics

(2) Industrial ceramics

(3) Diesel mechanics

(4) Drafting

(5) Furniture and cabinet making

(6) Building construction

(7) Industrial electricity

(8) Radio mechanics

(9) Machine shop practice

(10) Printing

(11) Sheetmetal work

(12) Watch and clock repairing

(13) Welding

(14) Men's tailoring

(15) Cosmetology

(16) Food trades

(17) Dressmaking

(18) Foundry

(E) Major Courses offered for Specialization in Trade and Technical and Teacher Education Curriculums (College level):

(1) Automotive technology

(2) Ceramics technology

(3) Stationary and marine engineering

(4) Technical drafting

(5) Technical furniture and cabinet making

(6) Technical building construction

(7) Electrical technology

(8) Applied electronics

(9) Machine shop practice

(10) Technical printing

(11) Sheetmetal technology

(12) Technical welding

(13) Wood pattern making

(14) Foundry

(15) Photography

(16) Mold craft

(17) Nautical courses

(18) Boat building

(19) Refrigeration and air conditioning

(20) Cosmetology

(21) Food trades

(22) Garment trade

(23) Diesel mechanics

(24) Radio mechanics

2. Supervising Plan of Work of Supervisors of Industrial Education when on Field Trips

(A) Help in the improvement of organizational procedures and practices:

(1) Formulation of school plan of activities

The objectives or program of activities herein developed by the school should be attainable for a certaindefinite period of time. These must be known and understood by each and every member of the staff and should be posted conspicuously, and the progress indicated from time to time.

(2) Developmental plan of school

A pictorial representation showing the developmental plan of the school with reference to the improvement of the site, buildings to be constructed, and the projects of the school must be drawn and posted conspicuously. This developmental plan will enable to administrator to plan some of the school's objectives year by year.

(3) Functional organization of the school

Every member of the school be aware or acquainted with the organization set-up of the school and know definitely his duties and responsibilities. The organization should be in accordance with sound principles of organization and management. A chart showing the channels authority and responsibility should be clearly indicated.

(4) Use of Advisory Committees and Public Relations

In order to promote satisfactory relationships with the schools specialized public and the general public, the use of advisory committees should be considered. An organized and functioning program of public relations is maintained for the purpose of keeping industry (labor and management) and the

general public informed of the types of services available through the school program.

(5) Teachers assigned in their major fields of study

In organizing the class program of instruction, the teachers should be assigned in their major fields of preparation. This is conductive to giving the best instruction with the most qualified teachers available.

(6) Efficient room utilization

It is the responsibility of the administrator to make efficient use of all the rooms or shops in the school so that each shop or classroom is being utilized as much as possible for every period of class instruction.

(7) Guidance services of the school

A comprehensive program of guidance services should include:

(a) Services to the individual -

(i) Individual inventory services
(ii) Information services
(iii) Counseling services
(iv) Placement services
(v) Follow-up services

(b) Services to the group including orientation and articulation

(c) Services to the instructional staff

(d) Services to the administration

(e) Research services

(8) Enrolment standards

Based upon the availability of housing, physical

and instructional facilities, the school administrator should set standards as to how many students the school can accomodate to warrent effective instruction. Enrolment should be gradually limited to that number wherein effective instruction can be possible.

(9) Selection of students

The quality of graduates from vocational schools will depend, to a great extent, on the kind of students that enter into a vocational schools. The students should be well selected to ensure to some extent that those who enter the vocational schools have the attitudes, interests, the application to work, and the physical stamina to undergo vocational training. Entrance tests and interview should be improved and enforced.

(10) Administrator and teacher-relationship

The establishment of satisfactory relationships between the administrator and the teachers will depend upon the ability of both to establish a two way communication between them. Applying the simple rules and principles of human relations and understanding will help very much in establishing satisfactory relationships between the administration and the teaching staff. Both are working towards the same goal.

(B) Help in the Improvement of physical and instructional facilities

(1) Physical facilities

(a) Adequacy of shop space

The space requirements for shop-work range from 50 to 100 square feet per student. Effort should be exerted to meet these requirements.

(b) Adequacy of tools and equipment

Each shop course should be equipped with the

minimum requirements in terms of tools and equipment. The list of requirements for each course is available upon request.

(c) Arrangement and layout of machines and equipment

The arrangement and layout of machines and equipment must be based on instructional efficiency and safety. However, it does not necessarily mean that the standards for production efficiency as established in production shops in industry should not be taken into consideration.

(d) Shop atmosphere

The atmosphere of the shop must be such that it is conductive to efficient hearing. There should be enough ventilation, light, organized flow of activities not mentioning the use of color dynamics in the shop.

(e) Provisions for safety

Every precaution must be made to insure safety and prevent accidents. The use of guards, caution signs and other devices should be encouraged. Many accidents are caused by ignorance and lack of supervision. Efforts should, therefore, be exerted that before student is allowed to use any of the equipment, he must have been trained properly to operate machines under careful supervision.

(f) Shop housekeeping

Good housekeeping is desirable and efforted should be exerted that everything is in its right place and that the shop is clean and orderly.

(2) Instructional facilities

(a) Objectives of the course

The objectives of the course must be well defined in terms of skills, information and attitudes to be developed. These should be based upon the

standards of the occupation.

(b) Organized course outlines and/or courses of study

The teacher should have at his disposal course outlines preferably the course of study so that the teacher is guided from day to day as to what he is expected to do in order to attain the objectives or standards set for the course.

(c) Vehicles of instruction and/or functional activities

The activities and/or the vehicles of instruction so designed must functional and arranged in an effective instructional order. These vehicles of instruction, whether they are jobs, projects, exercises, problems, or activities should be well planned and should be the means to carry over the skills, information and social patterns of conduct as the desired goals for the course.

(d) Adequacy of supplies and materials

There must be adequate instructional supplies and materials available to the students. Without materials the students cannot undertake the required projects in jobs as fast as their abilities permit. The suggested allocation for instructional materials and supplies average from 30 to 50 per student.

(e) Adequacy of instruction aids

The teacher should develop instructional aids and materials to enhance the learning and development of experiences of students. The development and use of models, mock-ups, charts, posters should be encouraged.

(f) Adequacy of textbooks, references, manuals

Efforts should be exerted to acquire needed textbooks and references. Meanwhile, the development

of manuals based upon the course of study should be accelerated

(C) Help in the improvement of Teachers' Competencies

(1) Selection and Organization of Course Contents

The teacher should be well versed in determining, selecting, and organizing course contents. The course contents should be organized under major blocks of instruction with their corresponding units indicated under each block. It must also indicate the completion time not only for the whole course content but also for their major blocks.

(2) Arranging contents and activities in an effective instructional order

After determining the course contents, the teachers should be able to arrange the contents in an effective instructional order. Frequency of use, difficulty, amount of judgement necessary are some of the factors to be considered in arranging content. The informational units should be tied up with basic operations skills or jobs.

(3) Selection and application of Efficient Methods of

(a) Manipulative skill
(b) Technical information
(c) Attitude and desirable patterns of conduct

The use of demonstration, panel discussion, conferences, and audio-visual aids and devices, shoule be encouraged in putting over the teaching contents.

(4) Evaluation Instruction

(a) Horizontal and vertical evaluation

Horizontal evaluation refers to evaluation in terms of students growth and achievement in competition with the other members of the class, whereas

vertical evaluation refers to evaluation of students growth and achievement in competition with himself.

(b) Evaluation in relation to standards set for the course

This is evaluation in terms of growth and achievement in relation to the standards set by the instructor in that particular course.

(5) Developing Course of Study

The teacher is expected to have in his possession a course outline of the subject or course he is teaching. It is desirable however, that a course of study should be developed in order to guide the teachers instructional activities.

(6) Establishing satisfactory teacher-student relationships

The teacher should be able to understand better his students that satisfactory relationship may be established and maintained between him and the students. Usually, a teacher that teaches effectively is respected by every students.

(7) Attending seminars, conferences, workshops and in-service training program

The teachers should be encouraged to attend seminars, conferences, workshops, and summer classes with view to keeping them abreast not only with the tecnological changes in industry but also in the efficient methods of instruction.

(8) Membership in Professional Organization

The advantages of joining a professional organization are obvious. It is felt that membership in any professional organization is one of the means to enhance professional growth.

(D) Strengthening the teacher education programs

(1) Development of course outline or course of study for each of the professional and technical courses as well as cultural subjects in teacher education curriculums.

Each instructor should have at his disposal an outline of the course he is teaching, though it is desired that he should have the course of study. This course of study, however, should be cooperatively developed by the instructors teaching the subject under the guidance of the administrator.

(2) Improvement of teacher competencies through conferences, work-shops, demonstrations, and seminars.

Teachers' competencies or skills should be upgraded. These include abilities in the selection and organization of subject matter, arranging the course content in an effective instructional order, selection and use of better methods of teaching, and evaluating the results of instruction.

(3) Improvement of instructional aids and devices

To enhance the learning experiences of students, the development and use of audio-visual aids and instructional devices should be encouraged.

(4) Improvement of on-and-off campus student teaching

The student teachers should be closely supervised in connection with their on-and-off campus teaching. The development of attitudes and competencies of future teachers at this stage will determine to some extent their abilities as teachers in the future.

(E) Help in the invigorating the industrial arts and practical arts programs

(1) Re-appraisal of the present instructional facilities of industrial arts and practical arts instruction

(a) Courses or activities offered

The courses suggested for industrial arts instruction as embodied in circular 27, s.1949, are only suggestive in nature. The circular should be interpreted, taking into consideration the local conditions and needs of the community.

(b) Adequacy of shop buildings

The minimum requirements of shop space for industrial arts instruction should not be less than 50 square feet per student.

(c) Adequacy of tools and equipment

Each shop should be equipped with the tools necessary for instruction in each of the activities offered. A list of suggested tools and equipment for each of the courses and activities is available upon request.

(d) Adequacy of instructional supplies and materials

The pupil or student can not be able to undertake the required projects or vehicles of instruction unless adequate provision is made for instructional materials and supplies.

(2) Gearing the industrial arts and practical arts progress to the development of home industries

The courses being offered in industrial arts and practical arts instruction should not only reflect the occupations in the community but also the utilization of the raw materials available in the community. Projects used as vehicles of instruction should, as much as possible, have commercial or economic possibilities. A visit to the market by the industrial or practical arts teacher and his students or pupils may serve as a guide in the planning of projects to be made in the shop.

(3) Improving the teachers' competencies

The teaching competencies of industrial arts and practical arts teachers should be upgrounded not only to keep them abreast of technological changes in industry but also in efficient methods of putting over the desired skills, information and attitudes and appreciations. Conferences and demonstration may be arranged.

3. Policies regarding the Trade-technical Education offerings in a National School of Arts and Trades

(1) The trade-technical education activities of a national school of arts and trades shall be operated as a distinct school program from the secondary trade school program with its own supervisory and instructional staff under the overall administration of the superintendent of the school of arts and trades.

(2) Any of the trade-technical education courses should be conceived as a direct progression of the secondary trade courses. Graduates of any other secondary curricula tailored for each particular group. That is, prerequisite courses should be taken first by these graduates, before they are permitted to take the regular trade-technical education curriculum.

(3) The standards of performance and requirements in Trade-Technical Education curriculum shall certainly be higher than the secondary trade level. It is directed to:

(a) Finishing the manipulative competency of vocational trade graduates.

(b) Advancement and progression of the various skills and competencies in the secondary trade courses.

(c) Development of advanced technical skills and knowledge of the secondary trade graduates.

(d) Leadership development of workers.

(e) Qualifying the upgrading training of employed workers.

(f) Extension training of workers and first-line management.

(g) Industrial experiments in tools, processes, materials, equipment, and better methods of production.

(4) Instructors in this level shall be selected on the bases of technical competence as demonstrated by performance and experience and on instructional potentialities demonstrated in previous teaching experiences or in handling and instructing workers in industry or its equivalent.

(5) The trade-technical education courses are offered:

(a) After a thorough occupational survey has been conducted.

(b) When there are enough instructional facilities (buildings, equipment, competent instructor, supplied and materials) available to warrant effective instruction.

(c) In direct and close cooperation with relation to organized industrial and agricultural enterprises. Cooperative trade training should be encouraged whenever feasible.

4. Policies Regarding the Secondary Trade Courses Offered in the Schools of Arts and Trades and Vocational Trade Schools

(1) The secondary trade courses offered in the schools of arts and trades and vocational trade schools shall be operated as a separate or distinct school program with separate supervisory and instructional staff under the administration of a superintendent or a principal in-charge. The special trade or short unit courses shall, for purposes of administration and supervision, be under the secondary trade school program.

(2) The secondary trade courses shall be conceived as terminal occupational development or training of persons who have sufficient or adequate, physical, mental, and age maturity and are possessed of sufficient aptitude and interest as to make them efficient citizen workers. However this does not preclude their entrance to pursue further studies in technology or allied fields.

(3) The standards of performance and requirements in the secondary trade courses shall be directed to -

(a) Provide sufficient manipulative skill and knowledge for effective entrance in a gainful pursuit.

(b) Provide opportunity courses for persons who cannot pursue a regular trade course.

(c) Provide extension training to employed workers and increase their creative and productive proficiencies.

(d) Stimulate industrial experiments in tools, processes, materials, equipment and better methods of production and/or service.

(e) Qualifying and upgrading training of workers which takes the nature of rebuilding the trained workers.

(4) Teachers of secondary trade courses shall be selected on the basis of trade or occupational competence as demonstrated by performance and experience and on teaching potentialities demostrated in previous teaching experiences or preparation or in handling workers in industry or its equivalent.

(5) The secondary trade courses are offered -

(a) After a thorough occupational survey has been conducted indicating the needs for the vocational offerings.

(b) When there are adequate teaching facilities which include appropriate accommodations, equipment, and tools, competent teachers, and supplies and

materials, to insure effective training.

(c) In response to the demands and requirements of agricultural and industrial enterprises for trained workers. Whenever possible, cooperative trade training shall be encouraged.

5. Statistics

FINANCING OF VOCATIONAL INDUSTRIAL SCHOOLS

1958 - 1959

Sources: a. National appropriations
b. Tuition fees
c. Production and miscellaneous income
d. Local sources (provincial or city aid)

Item	Amount (in Peso)
Appropriation Available	9,177,603.00
Personal Services	6,652,720.00 (72.49%)
Maintenance and Other Operating Expenses	1,733,475.00 (52.94%)
Equipment Outlay	307,790.00 (10.76%)
Appropriations as per Act 2080	7,270,490.00

DATE AND STATISTICS IN INDUSTRIAL ARTS 1/

1957 - 1958

EDUCATIONAL QUALIFICATIONS OF INDUSTRIAL ARTS TEACHERS

	No.	Percent
B.S.E.	677	10.66
B.S.E.E.	60	.95
B.S.I.E.	21	.33
B.S.I.A.	1	.02
E.T.C.	3,305	52.06
A.A.	43	.68
T.C. Trade Graduate	1,096	17.26
T.C. Agri. Graduate	70	1.10
Technical Course Graduate	459	7.23
Secondary Trade Graduate	141	2.22
Secondary Normal Graduate	199	3.13
Secondary Agr. Graduate	21	.33
General Secondary Graduate	164	2.58
Undergraduate	92	1.45
Total	6,349	

CIVIL SERVICE ELIGIBILITY

	No.	Percent
Senior Teacher	364	5.73
Junior Teacher	3,890	61.27
Other Tests	2,095	33.00
Total	6,349	

1/ Form 54 and Form 54-A

DATE AND STATISTICS IN INDUSTRIAL ARTS

(Continued)

S T A T U S

	No.	Percent
Permanent	4,209	66.29
Temporary	1,915	30.16
Emergency	102	1.61
Substitute	123	1.94
Total:	6,349	

NUMBER OF INDUSTRIAL ARTS CLASSES

	No.	Percent
Central	1,308	20.00
Barrio	5,041	79.40
Total:	6,349	

CONDITION OF BUILDING

	No.	Percent
Permanent	115	3.09
Semi-permanent	1,404	37.70
Temporary	2,205	59.21
Total:	3,724	

PURCHASES

	No.	Percent
Book & Magazine	P 47,862.59	1.70
Tools & Equipment	2,637,763.93	93.59
Supplies & Materials	132,466.16	
Total:	P2,818,082.68	

DATA ON STATISTICS IN TRADE AND TECHNICAL SCHOOLS[1/]

Number of schools: 47 School year: 1958-1959

Educational Qualifications	Teachers	Instructors
N.A.	20	20
B.S.E.	852	127
B.S.I.E.	40	9
B.S.H.E.	24	4
B.S.E.E.	9	3
B.S.M.E.	12	12
B.S.C.	9	0
B.S.C.E.	12	1
B.S.F.A.	7	1
Teachers Course - Trade	159	61
Teachers Course - Agriculture	0	0
E.T.C.	22	1
Technical Course - PSAT	232	49
Philippine Nautical School	3	0
A.A.	14	2
Secondary Trade Graduate	20	7
Secondary Agri. Graduate	0	0
Secondary Normal Graduate	0	0
General Secondary Graduate	10	1
Undergraduate	19	4
Total:	1,464	302
Civil Service Eligibility		
Senior (Arts & Trades)	12	34
Senior (Academic)	327	90
Junior (Arts & Trades)	90	50
Junior (Academic)	245	43
Senior (Promotional)	32	17
Junior (Promotional)	22	1
Junior (Converted)	1	0
Other Test	43	16
Total:	772	251
Status		
Permanent	678	216
Temporary	585	41
Emergency	173	42
Substitute	28	3
Total:	1,464	302

1/ BPS Form 19 Assignment Lists

REVISED FOUR-YEAR SECONDARY TRADE CURRICULUM

FIRST YEAR

	Number of Hours a Week	Approximate Number of 40-Minute Periods a Week	Credits
Shopwork 1 (Trade Knowledge and Information and Practicum)	15	3hrs.daily	3
Trade Drawing and Blueprint Reading 1	5	1 hr. daily	1
Applied Arithmetic-Elementary and Advance	3	5	1
General Science-Applied to shopwork	3	5	1
English 1 (Reading, Grammar and Composition)	3	5	1
Filipino Language 1	3	5	1
Health (2) and Physical Education (3)	3	5	1
TOTAL:	35		9

SECOND YEAR

Shopwork 2 (Trade Knowledge and Information and Practicum)	15	3 hrs. daily	3
Trade Drawing and Blueprint Reading 2	5	1 hr. daily	1
Algebra-Elementary and Advance	3	5	1
Study of Materials	3	5	1
English 2 (Reading, Grammar and Composition)	3	5	1
Filipino Language 2	3	5	1
Philippine Community Life and Problems	3	5	1
Health (2) and Physical Education (3)	3	5	1
TOTAL:	35		9

THIRD YEAR

Shopwork 3 (Technical Knowledge and Information and Practicum)	20	4 hrs.daily	4
Trade Drawing and Blueprint Reading 3	5	1 hr. daily	1
Plane Geometry-Applied to shopwork	3	5	1
Applied Chemistry	5	1 hr. daily	1
English 3 (Literature and Composition)	3	5	1

THIRD YEAR(Cont'd)

Filipino Language 3 (1/2) (First semester)	3	5	1
Filipino Language 4 (1/2) (Second semester)			
Physical Education (2) and PMT (3) for Boys			
Health (2) and Physical Education (3) for Girls	3	5	1
TOTAL:	42		10

FOURTH YEAR

Shopwork 4 (Technical Knowledge and Information and Practicum)	20	4 hrs.daily	4
Applied Industrial Mathematics	3	5	1
Applied Physics	5	1 hr. daily	1
English 4 (Literature and Composition)	3	5	1
Industrial Economics and Management	3	5	1
Philippine History and Government(1/2)			0.5
Whold History (1/2)	3	5	0.5
Physical Education (2) and PMT (3) for Boys:			
Health (2) and Physical Education (3) for Girls	3	5	1
TOTAL:	40		10

Health, Physical Education and Pre-Military Training shall be given on Saturdays.

Pre-Military Training may be substituted by some boys with Boy Scout membership if they meet the requirements provided in Preparatory Military Training Rules and Regulations.

Scouting, instead of physical education, may be given to registered Boy or Girl Scouts one day a week where there are registered Scoutmasters.

Shopwork shall be scheduled by the head of vocational/technical department with the assistance of the shop teachers and/or instructors with the approval of the school head based on a previous plan or schedule of shopwork activities. Shopwork in the first two years requires 300 hours per semester, while in the third and fourth years it requires 400 hours per semester. The daily scheduling of time and periods for the courses and subjects under this curriculum is intended to be flexible to suit the needs of the program.

REVISED CURRICULUM FOR TRADE-TECHNICAL EDUCATION*

FIRST YEAR

First Semester	Hours	Credits
Trade Education 101 (Major in Shopwork)	15	5
Drawing 101 (Fundamentals of Technical Sketching and Instrument Drawing)	3	1
Mathematics 101 (Applied Industrial Mathematics)	3	3
Applied Science 101 (Molecular and Atomic Constitution of Matters)	4	3
English 101 (Grammar, Rhetoric and Composition)	3	3
Filipino Language 101 (Grammer and Composition)	3	3
TOTAL:	31	18
Second Semester		
Trade Education 102 (Major in Shopwork)	15	5
Drawing 102 (Technocal Sketching, Instrument Drawing, and Blueprint Reading)	3	1
Mathematics 102 (Applied Industrial Mathematics)	3	3
Applied Science 102 (Study of Forces, Mechanics, Motion, and Pressure)	4	3
English 102 (Grammar, Rhetoric and Composition)	3	3
Filipino Language 102 (Grammar and Composition)	3	3
Social Science 102 (Economics)	3	3
TOTAL:	34	21

* The first two years of this curriculum are the same as those of the Bachelor of Science in Industrial Education curriculum.

Students to be admitted to this curriculum must have qualified in an entrance examination given for this purpose.

Major in shopwork will be offered in any of the following: automotive mechanics, building construction, drafting, electricity, furniture and cabinet making, machine shop, stationary and marine engineering, printing, welding, sheet metalwork, radio mechanics, foundry, wood patternmaking, and other trade courses for which facilities are available. Shop majors should be determined with the assistance of the vocational counselor and department heads. (See Memorandum No. 54, s. 1958)

SECOND YEAR#

First Semester	Hours	Credits
Trade Education 201(Major in Shopwork)	15	5
Drawing 201 (Advanced Technical Sketching, Instrument drawing, and Blueprint Reading)	3	1
Mathematics 201 (Advanced Applied Industrial Mathematics)	3	3
Applied Science 201 (Forces of Structures, Mechanics of Materials of Construction, and Sound)	4	3
English 201 (Effective Speech)	3	3
Social Science 201 (Philippine Industrial and Social Life)	3	3
TOTAL:	31	18
Second Semester		
Trade Education 202 (Major in Shopwork)	15	5
Drawing 202 (Advanced Technical Sketching, Instrument Drawing, and Blueprint Reading)	3	1
Mathematics 202 (Advanced Applied Industrial Mathematics)	3	3
Applied Science 202 (Magnetism and Electricity, Power and Light)	4	3
English 202 (Technical Writing and Reporting, Conference Leading, Correspondence, and Interview)	3	3
Psychology 201 (Fundamentals of Applied Psychology)	3	3
TOTAL:	31	18

Students who finished the first two years of this curriculum shall be awarded a proficiency certificate to enable them to enter immediately the occupations for which they were prepared, should they desire to stop at the end of the second years.

During the first two years of this curriculum, school administrators should scout for the best students who should take the BSIE curriculum, However, no student who had a grade lower than 2.5 in any of the courses in Trade Education (Major in Shopwork) take in the first two years should be recommended for admission to the BSIE curriculum.

Physical Ecucation and ROTC will be taken on Saturdays for five (5) hours for four semesters during the first two years.

THIRD YEAR*

First Semester	Hours	Credits
Trade Education 301 (Major in Shopwork)	15	5
Industrial Education 310 (Apprenticeship)	3	3
Industrial Education 311 (Labor Laws and Management)	3	3
Industrial Education312 (Industrial Psychology)	3	3
Industrial Education 313 (Conference Leader Training)	3	3
TOTAL:	27	17

Second Semester		
Trade Education 302 (Major in Shopwork)	15	5
Industrial Education 314 (Personnel Administration)	3	3
Industrial Education 315 (Foremanship and Shop Supervision)	3	3
Industrial Education 316 (Job Instruction)	3	3
Industrial Education 317(Shop Layouts, Organization and Management, and Equipment Selection)**	3	3
TOTAL:	27	17

* Trade-Technical students who complete the three years of this curriculum shall be awarded a diploma after one year of successful employment in any industry. In order that the issuance of the diploma may be facilitated, the student should be required to present a certificate of employment signed by the manager of the firm or office where he is employed.

** Same as Industrial Education 401, VSIE curriculum.

This curriculum prepares the students for advanced positions in the trades, such as foremanship and/or industrial supervision.

REVISED CURRICULUM FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN INDUSTRIAL EDUCATION*

FIRST YEAR

First Semester	Hours	Credits
Trade Education 101 (Major in Shopwork)	15	5
Drawing 101 (Foundamentals of Technical Sketching and Instrument Drawing)	3	1
Mathematics 101 (Applied Industrial Mathematics)	3	3
Applied Science 101 (Molecular and Atomic Constitution of Matters)	4	3
English 101 (Grammar, Rhetoric and Composition)	3	3
Filipino Language 101 (Grammar and Composition)	3	3
TOTAL:	31	18

Second Semester		
Trade Education 101 (Major in Shopwork)	15	5
Drawing 102 (Technical Sketching, Instrument Drawing and Blueprint Reading)	3	1
Mathematics 102 (Applied Industrial Mathematics)	3	3
Applied Science 102 (Study of Forces, Mechanics, Motion, and Pressure)	4	3
English 102 (Grammar, Rhetoric and Composition)	3	3
Filipino Language 102 (Grammar and Composition)	3	3
Social Science 102 (Economics)	3	3
TOTAL:	34	21

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* The first two years of this curriculum are the same as those of the trade-technical education curriculum.

Students to be admitted to this curriculum must have qualified in an entrance examination given for this purpose.

Major in shopwork will be offered in any of the courses indicated in Memorandum No. 54, s. 1958. Such courses may be offered provided training facilities are available and the necessary authority has been secured from the Director of Public Schools. Shop majors should be determined with the assistance of the vocational counselor and department heads.

SECOND YEAR

First Semester	Hours	Credits
Trade Education 201 (Major in Shopwork)	15	5
Drawing 201 (Advanced Technical Sketching, Instrument Drawing, and Blueprint Reading)	3	1
Mathematics 201 (Advanced Applied Industrial Mathematics)	3	3
Applied Science 201 (Forces of Structures, Mechanics of Materials of Construction and Sound)	4	3
English 201 (Effective Speech)	3	3
Social Science 201 (Philippine Industrial and Social Life)	3	3
TOTAL:	31	18

Second Semester		
Trade Education 202 (Major in Shopwork)	15	5
Drawing 202 (Advanced Technical Sketching, Instrument Drawing and Blueprint Reading)	3	1
Mathematics 202 (Advanced Applied Industrial Mathematics)	3	3
Applied Science 202 (Magnetism and Electricity, Power and Light)	4	3
English 202 (Technical Writing and Reporting, Conference Leading, Correspondence, and Interview)	3	3
Psychology 201 (Fundamentals of Applied Psychology)	3	3
TOTAL:	31	18

Physical Education and ROTC will be taken on Saturdays for five (5) hours for four semesters during the first two years.

THIRD YEAR

First Semester	Hours	Credits
Trade Education 301 (Major in Shopwork)	15	5
Industrial Education 301 (Principles and Practices of Vocational Education)	3	3
Industrial Education 302 (Educational Psychology)	3	3
Industrial Education 303 (Educational Sociology)	3	3
Spanish 1 (Elementary Spanish)	3	3
Electives (Related Subjects)	6	2-6
TOTAL:	33	19-23

Second Semester		
Trade Education 302 (Major in Shopwork)	15	5
Industrial Education 304 (Principles and Methods of Teaching Industrial Subjects)	3	3
Industrial Education 305 (Measurement and Evaluation in Industrial Education)	3	3
Industrial Education 306 (Educational and Vocational Guidance)	3	3
Spanish 2 (Elementary Spanish, continuation of Spanish 1)	3	3
Electives (Related Subjects)	6	2-6
TOTAL:	33	19-23

This curriculm is designed for the preparation of teachers to teach not only shopwork, which is their major preparation, but also the related subjects.

Beginning with the Third Year through the Fourth Year of this curriculum, the electives to be taken by the students will include such related subjects as Mathematics, Applied Science, and Drawing, or another shopwork where this is possible.

Students to be considered for admission in the third year of this curriculum should be selected on the basis of the desired qualities for the trade teaching profession, viz., pleasing personality, executive ability, intelligence, physical fitness, and skills as well as right attitude and aptitude for teaching.

FOURTH YEAR

First Semester	Hours	Credits
Trade Education 401 (Major in Shopwork)	15	5
Industrial Education 401 (Shop Layouts, Organization and Management, and Equipment Selection)	3	3
Industrial Education 402 (Audio-Visual Education)	3	3
Industrial Education 403 (Course Construction and Trade and Job Analysis)	3	3
Industrial Education 404 (Methods of Teaching Related Subjects)	3	3
Spanish 3 (Intermediate Spanish)	3	3
Elective (Related Subjects)	3	3
TOTAL	33	23

Second Semester		
Industrial Education 405 (Observation and Student Teaching)	30	15
Industrial Education 406 (Seminar on Problems in Industrial Education met during Student Teaching)		
Spanish 4 (Intermediate Spanish, continuation of Spanish 3)	3	3
TOTAL:	36	21

Student teaching is conducted both on and off-campus.

* Method of research in industrial field.

Note: The first semester offerings, except Spanish, may be offered during the second semester or vice versa.

CURRICULUM FOR THE COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN INDUSTRIAL ARTS
(B.S. in Ind. Arts)

FIRST YEAR

First Semester	Hours	Credits
English 1 (English Grammar and Composition)	3	3
Spanish 1 (Elementary Spanish)	3	3
National Language 1 (Functional Grammar, Correct Usage, and Composition)	3	3
Social Science 6 (General Principles of Sociology)	3	3
Psychology 1 (Fundamentals of Psychology)	3	3
Drawing 1 (Freehand Drawing and Technical Sketching)	3	1
Practical Arts 1 (Fundamental Handcrafts)	15	5
TOTAL:	33	21
Military Science	3	1

Second Semester	Hours	Credits
English 2 (English Grammar and Composition)	3	3
Spanish 2(Elementary Spanish, continuation of Spanish 1.)	3	3
National Language 2 (Functional Grammar, Correct Usage, and Composition)	3	3
Education 11 (Educational Sociology)	3	3
Psychology 3 (Educational Psychology)	3	3
Drawing 2 (Elements of Technical Drawing and Blueprint Reading)	3	1
Practical Arts 2 (Advanced Handicrafts, continuation of Practical Arts 1)	15	5
TOTAL:	33	21
Military Science	3	1

SECOND YEAR

First Semester	Hour	Credits
English 12 (Survey of Literature)	3	3
Spanish 3 (Intermediate Spanish)	3	3
Math. 1 (College Algebra)	3	3
Social Science 7 (Principles of Economics and Philippine Economics)	3	3
Ind. Ed. 1 (Principles and Methods of Teaching Industrial Subjects)	3	3
Drawing 3 (Advanced Technical Drawing and Blueprint Reading)	3	1
Practical Arts 3(General Woodworking)	15	5
TOTAL:	33	21
Military Science	3	1

Second Semester		
English 10 (Effective Speech)	3	3
Spanish 4 (Intermediate Spanish, continuation of Spanish 3)	3	3
Math. 2 (Plane Trigonometry)	3	3
Social Science 8(Industrial Sociology)	3	3
Ind. Ed. 2 (Trade and Job Analysis and Course Construction)	3	3
Drawing 4 (Industrial Drawing and Design)	3	1
Practical Arts 4 (General Metalwork)	15	5
TOTAL:	33	21
Military Science	3	1

THIRD YEAR

First Semester		
English 13 (Technical Writing and Reporting, Conference Leading, Correspondence, and the Interview)	3	3
Math.3 (Aplied Industrial Mathematics)	3	3
Physics 1 (Applied Physics, Including Mechanics, Molecular Physics, and Heat) 1/	9	5
Education 5 (Educational Measurement and Evaluation)	3	3
Practical Arts 5 (General Electricity)	15	5
TOTAL:	33	19
Physical Education 2/		

THIRD YEAR (Continued)

Second Semester	Hours	Credits
Physics 2 (Applied Physics, including Electricity, Sound, and Light) 1/	9	5
Ind. Ed. 3 (Shop Layouts, Organization, Management, and Equipment Selection)	3	3
Ind. Ed. 4 (Audio-Visual Education)	3	3
Elective 3/	3	3
Practical Arts 6(Graphic Arts)	15	5
TOTAL:	33	19
Physical Education 2/		

FOURTH YEAR

First Semester		
Ind. Ed. 6(Educational and Vocational Guidance)	3	3
Ind. Ed. 7(Administration and Supervision of Industrial Education - Introductory Course)	3	3
Drawing 5(Industrial Drawing and Design)	3	1
Elective 3/	6	6
Practical Arts 7 (Ceramics)	15	5
TOTAL:	30	18
Physical Education 2/	2	1

Second Semester		
Ind. Ed. 8(Observation and Practice Teaching)	15	15
Elective 3/	6	6
TOTAL:	21	21
Physical Education 2/	2	1

1/ Girls may take Biology or Chemistry if facilities permit.
2/ Physical Education may be taken in the first two years.
3/ May be in related subjects or in Industrial Education.

OVER-ALL ENROLEMENT BY VOCATIONAL COURSE
1958-1959

Course	Employee
Automechanics	4,989
Basic Courses (Boys)	3,290
Basic Course (Girls)	2,007
Blacksmithing	181
Boat Building	6
Building Construction	3,259
Ceramics	585
Chemical Products	15
Commercial or Graphic Arts	21
Cosmetology	1,115
Diesel Engine Mechanics	158
Drafting	869
Electricity	3,014
Food Handlers	15
Food Trades	1,228
Foundry	68
Furniture and Cabinet Making	3,715
Garment Trades	2,568
Girls Trades	124
Handicrafts	456
Homemaking	13
Horology	20
Home Industries	165
Industrial Arts	246
Iron Bench	42
Machine Shop Practice	1,707
Marine Engineering	178
Men's Tailoring	149
Mold Loft	19
Nautical Course	68
Photography	13
Printing	219
Radio Mechanics	601
Sheet Metalwork	526
Pattern Making	42
Power Plant Engineering	27
Stationary Engineering Mechanics	197
Stenotype	153
Welding	345
No Shop or Not Indicated	8
Interdemiate	172
General Course MALE	2,540
General Course FEMALE	1,913
General Course TOTAL	4,453
GRAND TOTAL MALE (General)	2,540
" (Grade Over-all)	24,577
" (Total)	27,117
GRAND TOTAL FEMALE (General)	1,913
" (Trade Over-all)	8,016
" (Total)	9,929
GRAND TOTAL (General)	4,453
" " (Trade Over-all)	32,593
" " (Total)	37,046

Note: Intermediate and General Course are not vocational courses.

Jan. 22, 1959

SUMMARY OF ENROLMENT
IN THE DIFFERENT CURRICULA

1958-1959

Curriculum	Male	Female	Total
4-YR. TECHNICAL	3188	333	3521
4-YR. TEACHER	716	121	837
COLLEGE TOTAL	3904	454	4358
SECONDARY TOTAL	23030	9475	32505
GRAND TOTAL	27106	9929	37053

ENROLMENT BY YEAR IN THE
FOUR-YEAR SECONDARY TRADE
CURRICULUM 1958-1959

Year	Male	Female	Total
FIRST YEAR	7,720	2,941	10,661
SECOND YEAR	5,644	2,137	7,781
THIRD YEAR	4,502	1,876	6,378
FOURTH YEAR	3,568	1,625	5,193
TOTAL OF FOUR-YEAR SEC.	21,434	8,579	30,013

ENROLMENT BY YEAR IN THE
TWO-YEAR SPECIAL TRADE
CURRICULUM 1958-1959

Year	Male	Female	Total
FIRST YEAR	1,221	881	2,102
SECOND YEAR	376	15	391
TOTAL TWO-YEAR COURSE	1,597	896	2,493

ENROLMENT BY YEAR IN THE
FOUR-YEAR TECHNICAL
CURRICULUM 1958-1959

Year	Male	Female	Total
FIRST YEAR	1,964	192	2,156
SECOND YEAR	1,199	137	1,336
THIRD YEAR	25	4	29
TOTAL ENROLMENT FOR FOUR-YEAR TECH. COURSE	3,188	333	3,521

6. The Initiation Launching and Activation of the Vocational Guidance Program

(A) The Need

Earlier studies on the placement of graduates of our vocational schools had not been very encouraging. For instance, in the followup study made on 7,939 graduates of the agricultural schools from 1925 to 1955, it was revealed that 24.03 per cent were engaged in non-agricultural occupations, while 16.09 per cent enrolled in non-agricultural colleges. In the case of the trade-industrial school graduates, where a follow-up was made on 23,948 from 1951 to 1955, it was revealed that 15.70 per cent enrolled in non-technical institutions.

Later studies, that of 1956 and 1957 graduates of our vocational schools, reveal this partial results:

Of the 3,844 graduates of agricultural schools in 1956 and 1957, 6.50 per cent were reported to be still unemployed; 7.64 per cent were employed in occupations other than those which they were prepared; and 18.08 per cent enrolled in colleges that will not give them further training and background for which training was given them in the agricultural schools.

Of the 6,063 graduates of trade-industrial schools in 1956 and 1957, 14.54 per cent were reported to be still unemployed; 3.69 per cent were reported in occupations other than those for which they were trained; and 11.33 per cent continued to study in colleges which will not give them further training and background with the kind of trade-industrial training they received in the trade-industrial schools.

The fishery schools were just recently turned over to the Bureau of Public Schools. This is, however, the picture with reference to the activities of fishery schools graduates: of the 137 reported graduates in 1956 and 1957, 24.81 per cent were mentioned to be still unemployed; 5.83 per cent were reported working in occupations other than those for which they were trained; and 11.67 per cent were reported to be continuing their

studies in colleges that will not give them further training and background in fishery education.

These figures mentioned above may indicate the need for (1) better criteria for and methods of selecting students, (2) better coordination of curricular offerings with job opportunities and occupational trends, (3) more reliable bases for matching student interest, aptitude and background with occupational choice and job opportunities, (4) an upgraded orientation program aimed at cultivating love for the chosen occupation and desire to contribute, through it, to the utmost in the economic development of the country and people, (5) a more functioning placement service, (6) a working program of acquinting prospective school leavers with related educational and training opportunities, and (7) a more extensive exploration of self-employing activities.

(B) The Services

The objectives of vocational guidance and the activities which are intended to meet them suggest that it can play a major role in helping satisfy the specific needs above. It aims to assist the individual choose an occupation, prepare for it, enter upon and progress in it. Through its data gathering (individual inventory), vocational information and counseling services, it helps the student match his opportunities for work with his training in consonance with his interests and abilities. Through vocational information and instruction he is helped to prepare for it. Its placement service helps him to enter upon the occupation of his choice while its follow-up and research service helps him progress in the job. A detailed presentation of each service as conceived and portrayed in the accompanying material, should shed more light on how vocational guidance achieves its role in the occupational world.

(C) The data gathering (individual inventory) service

This service is concerned with the collection, recording and interpretation of data about the mental, physical, social, and emotional assets and liabilities, and also the socio-economic background, interests and aptitude of individual students. Data so gathered about

the individual, as well as information on occupational trends, opportunities, requirements, working conditions, etc., form an important basis of the appraisal upon which both the selection of students for admission to the vocational school and their choice of occupations should depend. In other words, it (appraisal of the individual's inventory) helps to tell if Pedro is going to the right school, in what field of human endeavor he is most fit, the extent to which he will profit from the instruction and training provided by the school, and whether he will be able to build a satisfying career with it in the sense that he becomes most serviceable to himself, to his family, and to the community.

Assessment of individual students is done through tests (intelligence or mental ability, aptitude, interest, personality, performance, and sociometric,) study of previous school records on scholarship, character traits, special talents, socio-economic background, interviews with students and their parents on educational and vocational plans, evaluative devices (rating scales, checklists, etc.) helpful in making self-appraisals, anecdotal recording, study of autobiographies and samples of students' work. The implied sources of data take into account a wide range of such factors as physical development, health, mental characteristics, educational achievement, socio-economic background, interests and special talents. They are desirably kept in cumulative record folders. Their use encourages the free response type of recording as compared to the more rigid checklist or questionnaire type.

Inasmuch as students with either minor or complicated problems generally see the home room sponsor first, cumulative record folders are better kept by her. Under this arrangement, the inventory of a referral is sent by his home room sponsor to the guidance counselor.

Data gathering, recording and interpreting is primarily the home room sponsor's responsibility. Assistance is extened by a sub-committee on data gathering (individual inventory) service and the guidance counselor who, by virture of his background and training, usually possess competence in these tasks.

Counseling students on the choice of courses or occupations or on any other problem can proceed only when sufficient data are available. If there is not enough information, then the inventory will reveal the particular kind of additional data needed. The new facts may require the giving of selected tests, or a home visit, or conference with teachers and others.

The following points characterize the cumulative record of the student:

(1) It is cumulative
(2) It follows the student as he progresses in school.
(3) It contains facts rather than opinions. Only the necessary, usable and helpful information are included.
(4) It is available to staff members who can and will use it in a professional manner.
(5) It is recorded in an easy, convenient and efficient way.

(D) The vocational information service

This service is concerned with the collection and dissemination of information revealing (1) present and likely future job opportunities, (2) lines in progress on the job (related job and stepping stones), (3) different factors that make for job satisfaction, (4) requirements for getting jobs, (5) working conditions, (6) likely earnings, (7) production standards which must be met, (8) relations to fellow workers and to employers, (9) job ethics, and (10) how promotions are obtained. It is also concerned with securing, cataloging, disseminating and maintaining information about related educational and training opportunities at all school levels. Orientating prospective elementary school graduates and new students to the curricular offerings, training opportunities and facilities of the school and discovering possibilities for self-employing activities are also a part of this service.

Two devices, the community occupational survey and the follow-up study of school leavers are growing in use in connection with vocational information collection. The first indicates job opportunities, trends, requirements social status of occupations, etc.; the second, the

placement of school leavers, how their jobs were obtained, their needs and the help needed to enable them to get adjusted and progress, their plans, and the values of the training and guidance received. Both may be undertaken by means of questionnaires, interviews, or both. These may be supplemented by guided trips to representative areas of work, contacts with labor and management, convocation assemblies and forums, pertinent articles in periodicals, and by statistics obtained and compiled by the Bureau of Labor and the Bureau of Census and statistics or their agencies.

Teaching is still the most effective means of imparting vocational information. The curriculum can be systematically used to convey this information. Perhaps the least that could be done is to integrate occupational information in both the related subjects and vocational subject instruction. The school library can be made to contribute to the utmost in its dissemination. It may maintain shelves for printed materials on occupations, display clippings in occupational activities that are suggestive of self-employing jobs, put up vocationally-oriented posters, and summarize biographies of men successful in their respective occupational pursuits. Resource persons from both management and labor and from among the outstanding self-employed individuals in the community are valuable sources of information and should be given opportunities to speak in assemblies, forums, etc. The home room sponsors can be most helpful. Home room meetings provide excellent opportunities for imparting occupational information. All these can be supplemented by visits to business, industrial, agricultural, and fishery establishments and by school and community work experiences for the students.

It can not be overemphasized that occupational information is the other important basis upon which the selection of students for admission to vocational schools and their choice of occupations should largely depend. The youth's occupational choice should result from the matching of opportunities for work and service with his interests and abilities.

(E) The counseling service

Vocational counseling is neither giving advice nor

telling the student what he should follow. The individual is left to make his own decisions after he has been assisted in appraising himself in all aspects and the occupational world in terms of trends, opportunities, requirements, etc. One of the principles of educational and vocational guidance is that while the student should receive assistance in ascertaining his own qualifications and the occupational and educational opportunities available, freedom of choice is his inherent right and is as important to his development as equality of opportunity.

Roughly, the vocational counseling process proceeds as follows: (1) identification of the counselee's problem, (2) analysis of the same, (3) study of the individual inventory of possible causes, (4) study of partinent vocational information, (5) conferences with people who can be of help, (6) cooperatively planning solutions geared toward helping the counselee arrive at a decision, (7) placement, and (8) follow-up.

The main responsibility for helping the student marshal and evaluate the information about himself and the world of work remains with the counselor although complicated and minor problems related to occupational choice, preparation, adjustment and progress are first taken up with the home room sponsor. Only those whose problems their home room sponsors feel they can not be of much help are referred to the guidance counselor. This is a desirable arrangement and is encouraged. Sometimes, the counselor and the home room sponsor will find it wiser to refer to counselee to some teachers, workers in the occupation that interest him, and specialists (physicians, psychologist, psychiatrists, etc.), if any in the community, for assistance in obtaining more information about himself and his occupational choice. The successful counseling interview is so conducted that the counselee leaves it with the feeling that choosing a vocation is serious undertaking and that the counselor is ready and able to give him further help in this matter.

In addition to conducting counseling interviews with individual students, the guidance counselor meets with groups of students for various guidance purposes. He also conducts conferences with parents, representatives of business and industry and fellow members of the staff.

Counseling, however, is the heart of his work.

The counseling service is rendered more effectively when:

(1) Time is definetely set aside for counseling;
(2) Students are encouraged to discuss problems with the counselor;
(3) Group discussion and instruction relative to the problem which are common to a large number of students are provided;
(4) Provision for privacy during the counseling interview is made;
(5) Teacher conferences on individual problems of students are held; and
(6) Constructive action toward alleviation of the condition giving rise to the problems is planned and implemented.

(F) The placement service

This service is concerned with both in school placement of students in training opportunities or specific vocational courses available in the school and the job placement of school leavers. The former is usually extended shortly after the students' admission and after a counseling process ending in a decision by the counselee, in which case placement becomes a remedial measure. It helps to strengthen one's preparation for the occupation of his choice.

Transfer from the school to occupational activities is essentially an educational service concerned with making sure that the youth are so placed and that their dev development carried on for years in the school is continued in the early years of employment life. Placement is not more job hunting. It involves educating employers to ask for the "certified product", conferences between the youth and the school placement worker, and study of the reports from the youth and the prospective employer to the school placement service.

Students must be cautioned about the hazards of accepting the first attractive offer of employment. The

boy that takes the first job that comes along may sometime by doing himself a great injury because placement must be selective; that is, it must match the interests, ability and training of each individual to a job that will utilize these capacities to the maximum. The closing phases of the training program must include orientation on how to get a job in one's field of major interest and how to retain it once employed. The art of getting and holding a job are essential to proper placement.

To facilitate job placement, the school must designate and maintain a body (sub-committee on placement, as suggested in the organizational set-up presented in the enclosed material) that would act as liaison and contact agency for the school and the public and private industrial, business and agricultural establishments and agencies. It must:

(1) Assist and/or train students how to get and hold a job;
(2) Plan ways of aiding students during the transition from school to post-school activities;
(3) Provide adjustment check-up after placement;
(4) Establish cooperative relationship with other placement agencies;
(5) Establish a definite procedure for clearing vacancy notices and applications for placement;
(6) Survey and canvass the areas where students may obtain jobs or further training in order to discover additional opportunities;
(7) Give information to employers concerning the workers available and their abilities and characteristics; and
(8) Keep informed concerning labor laws and movements.

(G) The follow-up and research service

Interest in the school leaver can not and does not end with graduation. The school has a stake in each school leaver's future. The school leaver is the yardstick by which the public and the employer measure the school. The utility and worth of his education is the yardstick by which the former student, as well as the graduate, measures the school. The effectiveness of the vocational gudiance program is to be gauged by the satisfaction of both the

employee and the employer.

Much remains to be achieved when the new worker is placed on a job - the follow-up, that is, which is concerned with (1) following the student on the job to see that his occupational adjustment is effective and (2) evaluating the overall training program to determine its effectiveness and need for revision. Findings in it provide the basis upon which an evaluation of the schoc'§ instructional and guidance programs can be made. They also provide guidance in the reorientation of these programs.

The follow-up study of school leavers may be conducted through questionnaires, interviews with both the leavers themselves and their employers, and visits to their places of employment.

(h) Organization and Administration

Guidance is a function that must be shared by all and, therefore, must be administered such that all who are concerned in the training program for students are involved as active participants. The problem of organization is one of coordinating the guidance activities of the school in such a way that: (1) all the forces of the school are brought to bear in a unified and consistent way upon the problems of each student; (2) definite, primary responsibility for the parts of guidance be placed upon certain sub-committees working cooperatively with a central Guidance Committee; (3) work be so divided that each member of the staff and each sub-committee knows what its particular duty and responsibility is the things for which it is primarily responsible and the ways in which it merely contributes to the work of some other sub-committee; and that (4) the individual student has unified assistance so that he may not be confused by a multiplicity of counselors.

Organization makes for coordinated activities which increase the effectiveness of each and reduce duplication, thus making it possible to extend services to additional students. It makes possible the making of plans for meeting the most pressing needs. It also makes possible the

careful planning of additional services in the guidance program.

Organization is a machinery; in itself, it will not produce results. There must be a power to make the machinery run - a power of bring together people, ideas, materials, and resources into such smooth relationships that the total enterprise functions efficiently toward the attainment of objectives. The power referred to is administration.

The enclosed material embodying a suggested organizational set-up of a guidance program in a vocational school, the composition of the guidance committee and sub-committees, and functions of the super-intendent, principal, guidance committee, and sub-committees of guidance services is an attempt to picture how a vocational guidance program works.

A word or two on the chart is perhaps in order. The chart on the organizational set-up is merely suggestive. It is the consensus among writers in the field of guidance that the organization structure must be suited to local conditions. The philosophy of the school, the student body, and size, training and experience of the faculty are important factors that should be considered in determining the kind of organizational set-up. The philosophy of the community and its character and needs are also important factors to consider.

The literature on the subject of guidance program organization and administration suggests observance of principles to insure an efficiently functioning program. They are as follows:

(1) Guidance services are a direct responsibility of the administration.

(2) Guidance services should serve all students, not only the maladjusted.

(3) The cooperative effort of the school administrators and its staff members is essential to the development of an effective guidance program.

(4) The development or extension of guidance program required the identification of natural starting points, like follow-up study of school leavers, causes of failures, etc.

(5) The school must discover and draw into the guidance program all of the worthwhile guidance activities already in operation. Guidance services exist in every school to some degree. Such routine activities as checking of absences, issuance of admission slips, administration of disciplinary measures are not guidance services. Their association with the latter will only serve to cultivate an unwholesome attitude on the part of the students to the guidance program.

(6) Distinction must be drawn between guidance services and the instructional program.

(7) The success of the guidance program is dependent upon the competency of counselors, the contributions of teachers, the support of the school administrators and the utilization of community resources. But, the catalyst in this combination is the effectiveness of human relations.

(8) The practices, procedures, tools and techniques employed in the guidance program must be adapted to the training and ability of the guidance workers who are going to make use of them.

(9) Organization should be as simple as possible.

(10) The objectives of the guidance program should be in harmony with the objectives of the school. The former should be organized to facilitate the latter.

(11) The guidance program must recognize and operate within the limitations imposed by the school.

(12) Every staff member must have an understanding and appreciation of the practices, procedures, functions, and objectives of the guidance program.

(13) Adequate space, equipment, supplies, time and specilized personnel must be provided, whenever available.

(14) The guidance program should not be a compromising set of services but rather facilitating in nature.

(15) The development of the guidance program must be steady and of a long-range nature.

(16) It should not be assumed that the guidance program can substitute for an inadequate total school organization.

(17) The thinking of school personnel must be shifted from subjects to students and their special needs and problems.

(18) The guidance program should not take over the functions and activities of other departments of the school program.

(19) The guidance program can not be developed adequately without some additional expenses to the school; thus, some budgetary increases are necessary.

(20) Ample time for competent individual counseling should be provided.

(I) The Initiation, Launching and Activation of the Program

The guidance program, like any new program, should be carefully prepared for and introduced only after it is understood and generally accepted by teachers. Steps in this direction must lead to (1) acquisition of understanding of what is to be done, (2) acceptance of the plan, and (3) cultivation of a sense of responsibility of putting it into operation. Unless these three elements are present at least to some degree, the new undertaking will not succeed. The preparation takes time and requires careful planning.

(J) Approach to the initiation and launching of the Program

It is not possible to lay down any definite plan for beginning a program of guidance because, as in the organization and administration of the program, this has to vary with the conditions in any school or community. However, it is always well to begin with those guidance need and problem cases that are recognized by teachers because they either disturb them or interfere with teaching.

A follow-up study of school leavers, a study of the causes of failure, a case conference concerning a student with a problem, and visits to schools having one or more outstanding guidance services are some of the most helpful methods of developing this recognition of needs for launching a guidance program. All these will show the ineffectiveness of the usual school program and the necessity for giving some special attention to guidance techniques. These will also indicate the wisdom of placing on a committee the responsibility for the development of a plan for the school. And when teachers begin to recognize what the problems really are and realize their own inadequacy to meet them, they will be more ready to accept the help that can be given by someone who is specially trained for the work and who is given time from the teaching schedule to help them. Thus a case conference (method of solving student problems in which those concerned with the individual - usually the school principal, home room adviser, school nurse, teachers, and sometimes parents - consult together with a view to pooling and reviewing available data, filling in gaps in such data, and making recommendations as to the treatment to be used) concerning a student with a problem characterized by some or all of these - truancy, failing marks in both vocational and related subjects, dishonesty, consistently not doing his share in projects, and antagonism to teachers and fellow students - may lead to the designation of a committee to develop a plan by which students with problems can be helped. Then, this committee may suggest the organization of sub-committees to assume responsibility for (1) gathering data about these students, (2) acquiring occupational information expected to help them, (3) understanding and counseling them so that they would

mend their ways, make plans and arrive at decisions, (4) placing them in curricular and co-curricular activities in accordance with their interests, abilities, and background, and (5) following them up to see the effectiveness of the measures taken and to determine their needs upon which will depend the kind of assistance that will be extended.

(K) Integration and coordination.

A coordinated program, as conceived and portrayed in the chart of the accompanying materials, is one in which all services are integrated under the direction of a central Guidance Committee in the school. This Committee not only coordinates the existing services to prevent overlapping and wasted effort, but also assumes responsibility for recommending the provision of new services as need for these becomes apparent.

(L) In-service education of teachers.

In order to function effectively, the guidance program must be a cooperative effort. This demands that every person with whom every student has any association must be cognizant of the possibilities of the guidance program.

An in-service program in guidance is, therefore, necessary. The school administration must initiate it. It must be anchored in the specific needs and problems (re - the promotion of the guidance services) of participants (members of the school staff). Depending upon findings in surveys of needs and problems of teachers, the following may be treated in in-service programs:

(1) Form and uses of cumulative records.
(2) The teacher's part in building cumulative records and keeping them up to date.
(3) Sources and uses of occupational and training information.

(4) Teaching the vocational implications of subjects.
(5) Exploratory and training opportunities in the school's curriculum.
(6) Functions of the teacher in his counseling role.
(7) How to observe and interpret the behavior of students.
(8) The use of the anecdotal record.
(9) How to make case studies.
(10) The teacher's role in case conferences.
(11) The teacher's responsibility for gathering data about students.
(12) The development of proper student attitudes toward the guidance program.
(13) Assisting with the orientation program for students.
(14) Role of the teacher as a referral agent.
(15) Techniques of interviewing.
(16) The functions and practices of placement and follow-up.

Faculty and group meetings, maintaining a professional library, issuance of bulletines, case conferences, and formal training (attendance in guidance classes offered in colleges and attendance in workshops, seminars) are some ways of carrying on the program.

(M) Establishment of guidance program-home relationship.

The guidance of students is a cooperative undertaking not a task for the school alone. The community must be encouraged to accept common responsibility through individual and group effort for assisting student in meeting educational, vocational, and personal problems and in making choices upon which hinge their future worth as functioning members of society.

The community can not be ignored in planning the guidance program. The fears, conflicts and attitudes

engendered by home and community experiences enter into every situation throughout the school day as determining factors in student reactions. For instance, it is not uncommon to hear students say they are taking certain courses because their parents wanted them to; that their friends are taking them; or that the community has a high regard for those holding certain academic degrees. To be of real help to the students, the guidance program must, in some acceptable manner, be able to affect their home surroundings.

This function may be met by means of (1) letters to parents about the nature and purposes of the training and guidance programs; (2) more interpretative reports on student activities, achievements, and behavior; (3) parent-teacher conferences; (4) home visits; and (5) mutual reporting.

(N) Utilization of specialized personnel.

There is no hard and fast dividing line between the work of the specialists and the teachers. The ideal working situation is for the teacher to use, as need arises, the assistance of a doctor and/or a nurse to deal with health problems; that of a fellow member of the faculty for help in investigating cases that can not be solved without extensive home cooperation; that of the guidance counselor when he feels a counselee can be better helped by the former; that of a psychologist, if available, for special learning problems; or that of a psychiatrist, if available, for serious emotional difficulties.

(O) Summary.

The outline of steps and characterizing activities given below is intended to help the reader to visualize the initiation, launching and activation of the guidance program. The steps and their respective characterizing activities and the order the latter are to be undertaken are merely suggestive. Both characterizing activities and the sequence of undertaking them will depend largely upon the need or problem and the circumstances

surrounding them.

(1) Preparation by the school administrator.

(a) Identification of student needs and problems through surveys making use of questionnaires and interviews and observation.

(b) Selection of the most pressing needs or problems of students.

(c) Study of those problems for their implications and possible constructive steps that might be taken in preparation for their presentation of faculty members.

(2) Initiation of the program.

(a) Orientation of members of the staff to the needs or problems. This should deal with the implications and possible constructive measures and should emphasize the importance of cooperative planning and acting.

(b) Selection by faculty members of one of these problems or needs.

(c) Leading them to the giving of suggestions implementation of some of which may help satisfy/overcome the chosen need or problem.

(d) Selection of suggestions by the faculty members.

(e) Giving of hints in the direction of implementing selected suggestions through committee planning and action at propitious times.

(3) Launching of the program.

(a) Organization of the Guidance Committee and

Sub-Committees of Services.

(b) Definition of responsibilities of the Guidance Committee, each Sub-Committee, the teachers, and the school administrator (Superintendent/Principal).

(c) Meetings of the Guidance Committee and Sub-Committees (separately) to deliberate on the steps to take.

(d) Reporting by these committees to school administrator (Superintendent/Principal) and other members of the school staff on steps they will take. This should cite how teachers will be involved in the activities. Suggestions from staff members, especially the instructional staff, should be encouraged.

(4) Activation of the program.

(a) Carrying out of plans by the Guidance Committee, Sub-Committees, school administrator (Superintendent/Principal), and teachers.

(b) Consultations with the sub committees, teachers, and school administrator (Superintendent/Principal) by the Guidance Committee with the aim in view of coordinating and integrating the activities.

(c) Initiation of an in-service education in guidance by the Guidance Committee in order to help teachers and sub-committee members carry out their respective roles.

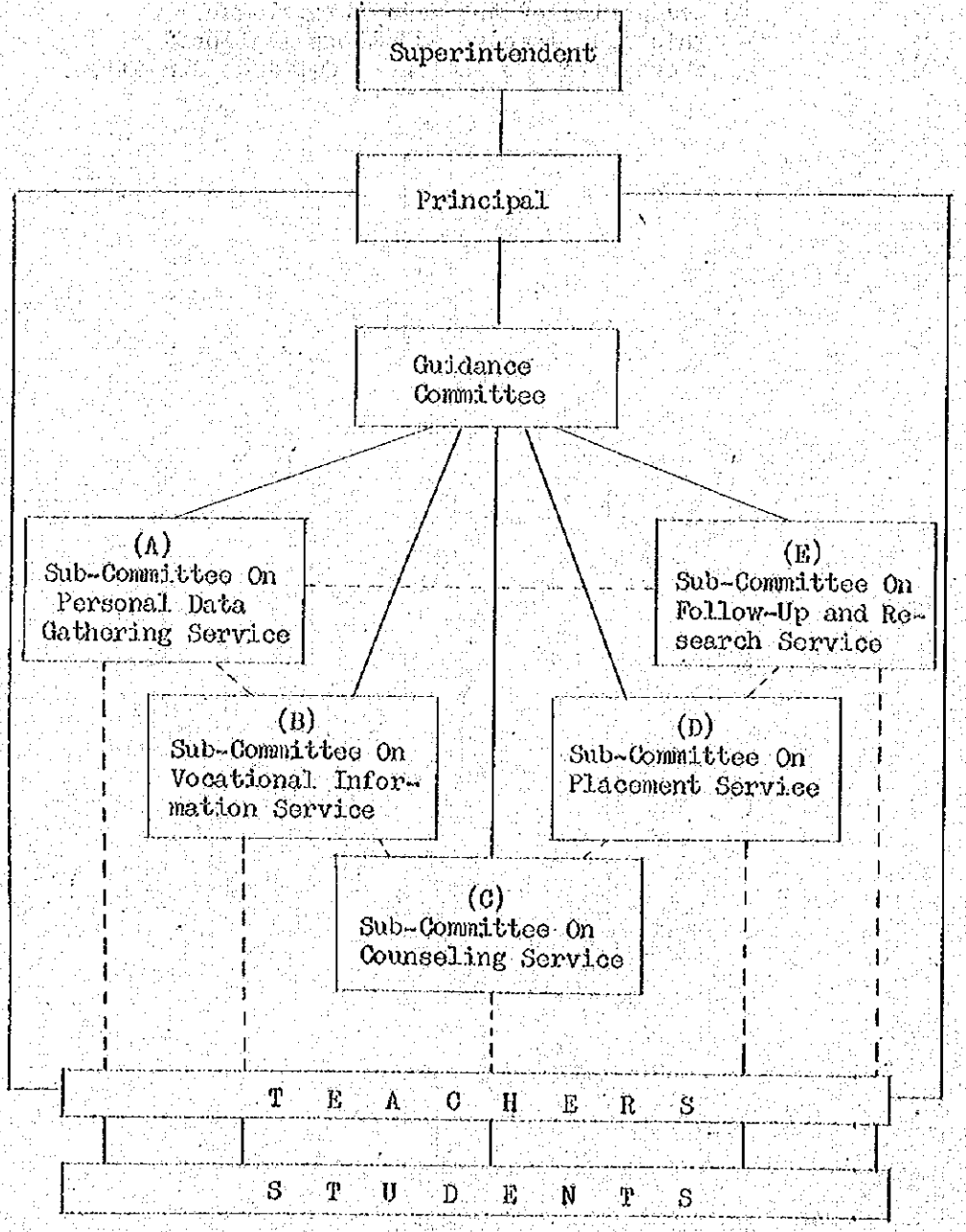
(d) Establishment of a harmonious guidance program-home relationship by the Guidance Committee.

(e) Interaction among school administrator (Superintendent/Principal), Guidance Committee,

and Sub-Committee members, teachers and specialized personnel, if available.

(f) Evaluation of the activities taken. This will involve all those mentioned above with the Chairman, Guidance Committee.

SUGGESTED ORGANIZATIONAL SET-UP OF A
GUIDANCE PROGRAM IN A VOCATIONAL SCHOOL
(COMMITTED ORGANIZATION APPROACH)



7. Composition and Working Relationships

(A) Guidance Committee

The School Administrator (Superintendent/Principal) selects six members of the school staff on the basis of, as much as possible, background and training in guidance, position of responsibility in the school, and aptitude to discharge responsibilities incident to the initiation, activation and development of the different phases of the guidance program. The Chairman shall be elected by the group. The guidance counselor, if any, shall be a member of this Committee and shall act as the Executive-Secretary. Members of this Committee, except the Chairman, become Chairman of Sub-Committees of Services. The guidance counselor, who is concurrently Executive-Secretary of this Committee, automatically becomes the Chairman of the Sub-Committee on Counseling Service.

This Committee will work with the heads of the other major departments of the school.

(B) Sub-committees

Three members will compose each Sub-Committee of Services, with a selected member of the Guidance Committee to act as the Chairman of each Sub-Committee. The two other members are appointed by the school administrator upon the joint recommendation of the Chairman of the Guidance Committee and each Chairman of the Sub-Committees of Services.

(1) The Sub Committee on Personal Data Gathering Service works with the other Sub-Committees, homeroom sponsors/advisers, class and organization advisers, teachers, parents, physicians, nurses, etc, and civic agencies in the community.

(2) The Sub-Committee on Vocational Information Service works with the other Sub-Committees, government (Narra, Namarco, Acefa, Facoma, Nario, local employment service, etc.), and private agencies, business establishments, and private firms; civic industrial, agricultural, and business leaders; and other resource persons in the community.

(3) The Sub-Committee on Counseling service works with the other Sub-Committees, homeroom sponsors/advisers, teachers, class and organization advisers, parents, civic organization, government and private agencies, and specialists, if any in the community, such as psychiatrist, psychologists, etc.

(4) The Sub-Committee on Placement Service works with the other Sub-Committees, government and private agencies, business establishments and industrial firms, civic, industrial, agricultural, and business leaders, and other resource persons in the community.

(5) The Sub-Committee on Follow-Up and Research Service works with the other Sub-Committees, homeroom sponsor/adviser, class and organization advisers, teachers, parents, school leavers, and business and industrial establishments or firms.

All the Sub-Committees of Services must, in the interest or profiting from the cooperation, experiences, and ideas of members of the school staff (administrative, supervisory, instructional and service), take concrete steps aimed at involving them in the guidance program.

(C) Functions

Superintendent *

(1) To organize and subsequently select and appoint members of the guidance committee and the other members of sub-committees of the guidance services,

(2) To give constant administrative support of the guidance program including financial support and provision for inservice education of guidance workers in the school,

(3) To issue, from time to time, plans and policies for the guidance program so recommended by the guidance committee, and

(4) To build public relations such that resources in the community could be made available to the promotion of the guidance program.

Principal

(1) To arrange program of activities, teaching and co-curricular, of members of the staff to allow time to those given definite responsibilities to be devoted in the guidance program,

(2) To arrange for the allocation of facilities and materials for the guidance program as recommended by the guidance committee,

(3) To arrange time for in-service education of guidance workers,

(4) To act as adviser of the guidance committee, and

* Where the administrative head of a vocational school is a Principal, the functions of the Superintendent in the guidance program are also performed by the former (Principal).

(5) To supervise the program and activities of the guidance services.

Guidance Committee

(1) To meet regularly and recommend the setting up of plans and policies incident to the promotion of the different guidance services, including the correlation of the guidance program to the total education program of the school, the promotion of harmonious guidance program-home relationship, and in-service, education in guidance,

(2) To organize the Sub-Committees of services and set them to function,

(3) To act as the coordinating agency of the different-services of the guidance program,

(4) To draw a scheduled program of activities of the Guidance Committee and Sub-Committees of services based on a survey of the needs of the student population, and

(5) To evaluate the guidance program of the school.

Sub-Committees

(1) Personal Data Gathering Service

(a) To secure information about the students by means of tests (aptitude, interest, personality, intelligence, etc.), reports (BPS Forms 137, 138, etc.), records (cumulative, anecdotal, tests, etc.), and personal interviews with students, teachers, parents, etc.),

(b) To record these facts so gathered in the individual students cumulative record;

(c) To interpret individual personal inventory data so gathered as a basis for counseling and in vitalizing and extending the cumulative record system,

(d) To assist the homeroom advisers/sponsors in collecting, analyzing and understanding students interests, aptitudes, needs, limitations, opportunities, and problems, and

(e) To select, with the active cooperation and assistance of the other services, students for admission into the school.

(2) Vocational Information Service

(a) To periodically secure information concerning job opportunities, local occupational requirements, and the possibility of creating opportunities for self-employment in the community,

(b) To organize and interpret the information secured for possible indication of occupational trends and job opportunities,

(c) To present, for publicity, the information gathered relative to local occupations through school organ, convocations, meetings, and charts and other visual aids, and

(d) To orient prospective elementary school graduates and students seeking admission with the curricular offerings, training opportunities, and facilities in the school.

(3) Counseling Service

(a) To assist homeroom sponsors/advisers in the interpretation of personal data of students,

(b) To assist students referred to the sub-committee in the identification of their problems - vocational, educational, social or personal,

(c) To assist the individual student in the planning of possible solutions to his problem and to arrive at certain decisions,

(d) To help the individual student in making a start toward the carrying out of his plans or in the modification of his plans.

(4) Placement Service

(a) To make contacts with different government and private agencies and firms for possible placement of school leavers (graduates and dropouts),

(b) To assist school leavers in securing employment through established agencies or firms or through direct service of the school,

(c) To show possibilities to school leavers of opportunities of self-employment in the communities where they reside, and

(d) To assist students, in cooperation with other services, to be placed in courses/activities wherein they may best use their aptitudes and interests to the fullest advantage.

(5) Follow-Up and Research Service

(a) To periodically maintain contacts with school leavers (graduates and dropouts) for rendering further assistance for them, if necessary,

(b) To check individual achievements and/or activities of school leaverse for the purpose of evaluating and/or improving the guidance program of the school and in furnishing information for the evaluation and possible revision or refinement of the school educational program in the light of school leavers' experiences, and

(c) To conduct research studies concerning matters that will help the guidance and the instructional program of the school that should reflect the problems of school leavers.

Teacher

(1) To participage actively in the guidance activities (data gathering, occupational information collection and dissemination, counseling, placement, and follow-up) where they are involved in by the Sub-Committees of Services,

(2) To apprized the Sub-Committees of Services and the Guidance Committee of the problems encountered incident to the promotion of the guidance services not only for the purpose of securing the necessary help but also to enable these committees to correct the situations responsible for those problems, and

(3) To help promote a harmonious guidance program-home relationship.

S I N G A P O R E

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Introduction

Singapore, an island of 225 square miles, became a self-governing State on the 3rd of June this year. The total population is 1,549,000 of which 54% are below the age of 21. The population is one of the youngest in the world and is expanding rapidly, so that of the many problems facing the island with very limited natural resources, one of the most urgent is to provide adequate educational facilities for the ever increasing number of children.

The schools of Singapore can be broadly sub-divided according to the method of their provision and control. Thus there are Government schools, Government-Aided schools, and Private schools. The Government schools are of three types, English, Malay and Chinese. Fully-aided schools which include English, Chinese and Tamil schools are given grants which, roughly, are sufficient to cover the running costs of the schools, including the salaries of teachers.

It must be clearly understood that the term 'English school' means a school for children of all races, in which the medium of instruction is English. In the Chinese schools the medium of instruction is Chinese and so on. The Chinese, Malay and Tamils schools are racial schools. English is taught in all of them. In the English schools the pupil is taught his or her mother tongue as a subject. It is the intention of the present Government to provide the teaching of Malay in all schools.

Before the war, education in Singapore was limited in scope. The basic aim was to provide general education and even then more than 50% of the children of school-going age did not receive any formal education. But after the war, there has been rapid expansion in education, particularly primary education. At present there are 321,000 pupils, 10,000 teachers and 730 schools. For Government and Government-Aided schools the pupils in the various grades are as follows:

Primary Education by Grade:

1st year	59,745	4th year	36,841
2nd "	51,990	5th "	26,692
3rd "	47,273	6th "	23,904

7th year .... 1,376 (for Malay and Tamil schools only)

Secondary Education by Grade:

1st year	12,418	4th year	5,929
2nd "	10,373	5th "	2,463
3rd "	7,665	6th "	1,831

Vocational and Technical Education by Grade:

1st year	715	3rd year	325
2nd "	589	4th "	270

Fees charged in Government and Aided schools have always been moderate, but even so there have always been many free places for poor children and scholarships for those who distinguish themselves in examinations. The following is the scale of fees charged:-

Primary classes (if payable)	$2,50 ¢	per month
Secondary classes (including technical and commercial schools (boys) ,	$4.00	per month
Secondary classes (girls)	$3.00	per month
Trade schools	$3.00	per month

Education in primary schools is free for most pupils. In Government and Aided schools pupils born in Malaya and of the correct ages for their classes have their fees remitted.

As stated previously emphasis has so far been on general type of education. Before the war, Singapore had only two trade schools. There were also evening classes in technical subjects conducted at one of the trade schools and at a Government secondary school. Commercial schools, practically all of which were privately run, catered for pupils of varying educational attainments, who hoped, later, to be employed in the commercial houses.

But with the rapid expansion in education in the post-war years, it was realized that an alternative form of secondary education should be provided. With a change in the political scene more and more parents no longer believe that their children have a greater future if they pursue an academic-type of school. Nevertheless technical and vocational education is still in its infancy in Singapore. It is interesting to note that though 30.2% of the national budget is spent on education, only 0.4% goes to vocational and technical education.

In addition to the two trade schools already mentioned, there are two secondary technical schools which were set up late in 1956. An academic type of school was also converted into a commercial school in the same year. The Singapore Polytechnic was officially opened early this year, but it has been providing part time and full-time courses in technical and commercial subjects for some time. The University of Malaya, jointly sponsored by the Governments of the Federation of Malaya and Singapore, set up a faculty in Egnineering in 1955. It should be noted that in all these vocational and technical institutions the medium of instruction is English.

An Assistant Director of Education (Technical) was appointed in 1954, but the officer resigned early in 1959. He was advisor to the Director of Education with regard to the development of technical and vocational education, and he also assisted in the drafting of an apprentice scheme regulating the employment of apprentices.

1. Trade Schools

Of the two trade schools, one is a Government school, and the other is Government-Aided. Both the schools provide full time pre-apprentice trade courses.

The Government trade school caters for pupils who have completed the six year primary course but failed to gain entry to a secondary school. These pupils, before being admitted, have to pass an entrance test in Arithmetic and English followed by a personal interview.

The courses provided at this school are General Mechanics, Electrical Engineering, and General Building Construction. The first two are of 3 years and the third of 2 years.

One workshop at the school is entirely used as a Manual Instruction Centre at which pupils from some 21 primary schools attend on a voluntary basis.

The school also conducts evening classes in preparation for the City and Guilds of London Institute examinations.

The other trade school provides training in General Mechanics, including fitting, turning, welding and motor repair work; Carpentry; Printing and Tailoring.

2. Secondary Technical schools

These schools admit pupils who have passed the Common Secondary School Entrance Examination and who chose to go to Technical schools instead of Grammar Schools. Tests for vocational selection are very complex and involve great issues. They are therefore not easy to devise in a country where technical education is just beginning and with no great industrialisation. It seems that at this initial stage of technical education expansion it may not do much harm to leave the choice for technical education to the student and his parents. However, when technical education is more developed, vocational guidance should be carried out more realistically.

Pupils attend the Secondary Technical schools for a four-year course. They will sit the General Certificate of Education conducted by the Associated Board of London. At the present moment the subjects taught include Mathematics, Mechanics, Physics, Chemistry, English, History, Geography and Technical Drawing. Because of lack of suitable teachers other technical subjects like Woodwork and Metal-work are not provided.

The setting up of vocational and technical schools in Singapore involves many problems some of which are

difficult to solve. A very urgent problem is the training and staffing of teachers. As a temporary measure a number of qualified teachers have been selected to take full-time courses in technical subjects at the Polytechnic. On completion of their courses they will teach at the secondary technical schools. If the number of trade schools is to increase appreciably then the question of training teachers and instructors to teach the various trades in a language other than English is an important one. Whatever facilities there are locally to train vocational and technical teachers the medium of instruction at such institutions is English.

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1. A Short Histroy of the Development of Vocational and Technical Education

The Ministry of Education began its vocational and technical education since 1913 and always extended its programme with all efforts. In 1936 the National Plan of Education offered opportunities to the Primary and Secondary School graduates to be able to enter into the Vocational Schools and to learn the knowledge and skills of various trades for their career. Vocational Schools were set up both in the Central and in the Provincial Areas with respect to the need and popular demand from the people. They were devided into 3 levels as follows:

(1) The Lower Vocational Schools admitted the graduates of a 4-year Primary Education.

(2) The Upper Vocational Schools admitted the graduates of a 3-year Lower Secondary Education.

(3) The Higher Vocational Schools admitted the graduates of a 3-year Upper Secondary Education.

The Lower Vocational Schools offered 2 to 3-year courses depending on their difficulties such as Home Economics, Carpentry, Metal, Leatherwork and Agriculture. The Upper Vocational Schools offered 3-year courses in Tailoring, Home Economics, Carpentry, Leatherwork, and Agriculture. The Higher Vocational Schools also offered 3-year courses in Painting, Engineering Trades, Building Trades, Home Economics, Commerce, and Foreign Languages. No tuition fee was charged against students in any of these Vocational Schools.

The management of Vocational Education faced more problems than those of the Secondary Education for lack of vocational teachers and the support of the people to send their children into the schools. The Department of Vocational Education solved the problems by improving courses of study in each level of Vocational Schools into higher standards of learning; offering Upper and Higher Courses for Teacher Training; and recruiting men skilled in the profession to become teachers. The World War Second set back the advance of the Vocational and Technical Education. Many schools were suffered from the War and many were also closed due to no students interested to learn. The number of teachers and students was then decreased

and at the same time the teaching facilities were inadequate. After the World War in 1951 the Government took more interest in Vocational Education, the Department was expanded from 3 to 7 Divisions for respective administration:

1. Secretary of the Department
2. Technical Institute Division
3. Commerce and Industrial Division
4. Vocational School Division
5. Agricultural School Division
6. Vocational Promotion Division
7. Design and Construction Division

The Vocational Education on the other hand has greatly progressed up to the standard of technical education both in number and in qualities through the technical assistance of various Plans, Governments, Agencies, Organizations, and so on. The people now realize the role of vocational technical education so much that even two shifts a day are still far from needs.

2. Statistics

(1) The total population of Thailand in 1957 is 22,800,000.

(2) Table 1. Children in Compulsory Level according to Primary Education Acts in the whole country: 1957 by Age

Age	Number of Children Surveyed by Amphur			Amphur Informatory Number		
	Total	Male	Female	Total	Male	Female
Total	3,142,492	1,640,285	1,502,207	3,051,411	1,591,800	1,460,111
8 years	581,910	302,119	279,791	561,472	291,317	270,115
9 years	558,801	290,486	268,315	542,964	280,975	261,989
10 years	526,513	270,625	255,888	514,502	264,823	249,679
11 years	479,072	249,143	229,929	470,487	244,344	226,143
12 years	392,755	204,318	188,437	384,447	199,802	184,645
13 years	391,476	153,533	137,943	282,019	148,422	133,597
14 years	196,980	105,963	91,017	187,389	102,048	87,341
15 years	114,985	64,098	50,887	106,131	59,569	46,562

(3) Table 2. Students of Elementary Level in Each Grade during 5 years 1953 - 1957

Grade	1953	1954	1955	1956	1957
Total	2,925,399	2,937,744	2,952,718	3,057,515	3,188,463
Pratom 1	1,273,765	1,233,704	1,230,889	1,220,892	1,247,350
Pratom 2	685,000	684,087	685,174	756,396	791,351
Pratom 3	559,938	563,369	574,532	606,048	641,031
Pratom 4	408,696	456,584	462,123	474,179	508,731

(4) Table 3. Percentage of Elementary Students in Each Grade during 5 years 1953 - 1957

Grade	1953	1954	1955	1956	1957
Total	100.00	100.00	100.00	100.00	100.00
Pratom 1	43.54	41.99	41.68	39.93	39.12
Pratom 2	23.35	23.29	23.20	24.75	28.82
Pratom 3	19.14	19.18	19.46	19.82	20.10
Pratom 4	13.97	15.54	15.66	15.50	15.96

(5) Table 4. Students of Secondary & Pre-University Level in Each Grade during 5 years: 1953 - 1957

Grade	1953	1954	1955	1956	1957
Total	211,728	259,141	309,890	370,005	415,441
Matayom 1	61,142	74,300	85,867	96,176	104,887
Matayom 2	45,343	57,369	69,477	80,815	91,118
Matayom 3	37,196	44,553	54,455	69,005	74,486	57,941
Matayom 4	27,059	33,893	39,816	49,337	57,941
Matayom 5	18,760	23,823	30,410	36,847	32,623
Matayom 6	15,323	17,996	22,568	28,399	42,947
Pre-University 1	4,031	4,490	4,480	5,693	7,183
Pre-University 2	2,874	2,717	2,817	3,733	4,256

(6) Table 5. Percentage of Secondary & Pre-University Students in Each Grade during 5 years: 1953 - 1957

Grade	1953	1954	1955	1956	1957
Total	100.00	100.00	100.00	100.00	100.00
Matayom 1	28.88	28.67	27.71	25.99	25.25
Matayom 2	21.41	22.14	22.42	21.84	21.93
Matayom 3	17.56	17.19	17.57	18.65	17.93
Matayom 4	12.78	13.08	12.85	13.34	13.95
Matayom 5	8.86	9.19	9.81	9.96	10.26
Matayom 6	7.24	6.95	7.28	7.67	7.93
Pre-University 1	1.91	1.73	1.45	1.54	1.73
Pre-University 2	1.36	1.05	0.91	1.01	1.02

(7) Table 6. Students of Vocational & Teacher Training Level during 5 years: 1953 - 1957

Level of Education	1953	1954	1955	1956	1957
Total	38,427	43,324	50,322	56,782	67,247
Lower Vocational	17,651	19,302	20,455	18,356	17,582
Upper Vocational	10,274	12,020	15,867	18,324	20,645
Higher Vocational	5,281	5,776	7,154	10,225	15,603
Technical	393	374	572	796	2,387
Home Economics	568	643	654	695	608
Teacher Training	4,260	5,209	5,620	8,386	10,422

Note: The Lower Vocational Level will soon be transferred to the Primary Extension under the Department of Primary Education. Home Economics and Teacher Training belong to the Department of Teacher Training.

Level of Education	1953	1954	1955	1956	1957
Total	100.00	100.00	100.00	100.00	100.00
Lower Vocational	45.93	44.55	40.65	32.33	26.15
Upper Vocational	26.74	27.74	31.53	32.27	30.70
Higher Vocational	13.74	13.34	14.22	18.00	23.20
Technical	1.02	0.87	1.14	1.40	3.55
Home Economics	1.48	1.48	1.30	1.22	0.90
Teacher Training	11.09	12.02	11.16	14.78	15.50

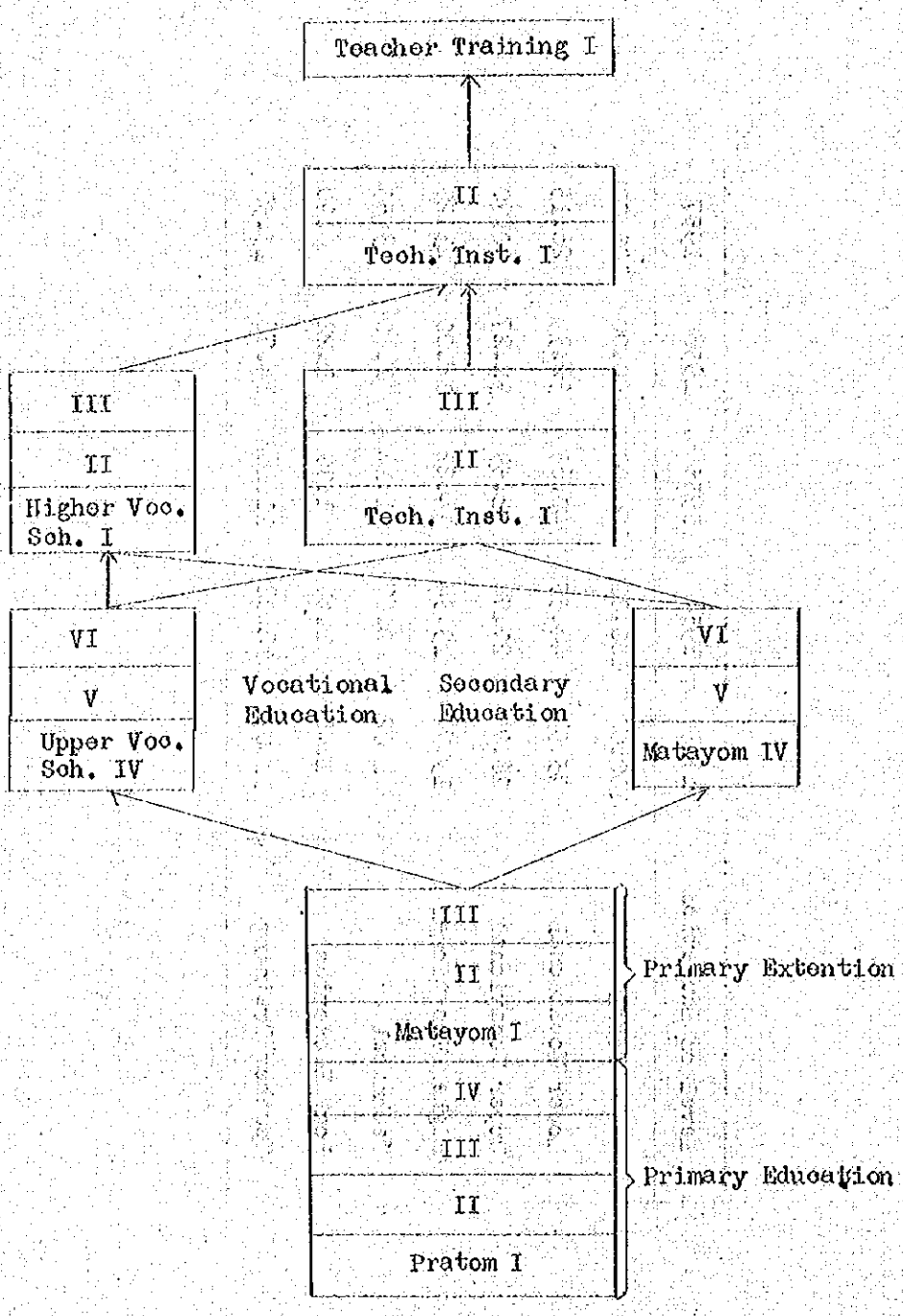


Illustration No. I Student Flow

A P P E N D I X

(1) The Educational Flow

Illustration No. 1 shows the lines of travel by which a student may reach the vocational Technical Education Pratom I through Pratom IV the equivalent of the first four grades in the United States, is compulsory for all students and a Primary Extension of another 3 years known as Matayom I, II, and III is now being planned to include them in the Complusory Act. Beyond this point though school attendance is voluntary, yet the students nowadays are anxious to carry on their study. A boy or girl may continue his or her education to suit own purposes, either the vocational sequence or the academic sequence.

In the vocational sequence there are upper vocational schools as Matayom IV, V and VI for boys and girls. The former are generally referred to as "Carpentry Schools" which are now being converted to "Industrial Trades Schools"; the latter as "Home Economics Schools" whose curricula are now being expanded to meet the urgent needs of the people.

The upper vocational schools under the new curricula are to give the students 18 hours in academic subjects and 17 hours in vocational subjects a week or roughly a fifty to fifty per cent basis.

Matayom I through VI is traditionally popular by both the students and their parents. Upon graduating from Matayom VI, a student is really limited only by his abilities as far as further educational attainment is concerned. The Universities, the Technical Institutes, and the higher vocational schools will all welcome - provided he can pass their respective entrance examinations. The costs incident to higher education do not seem to be critical factor in student selection. On the whole, most schools are relatively inexpensive.

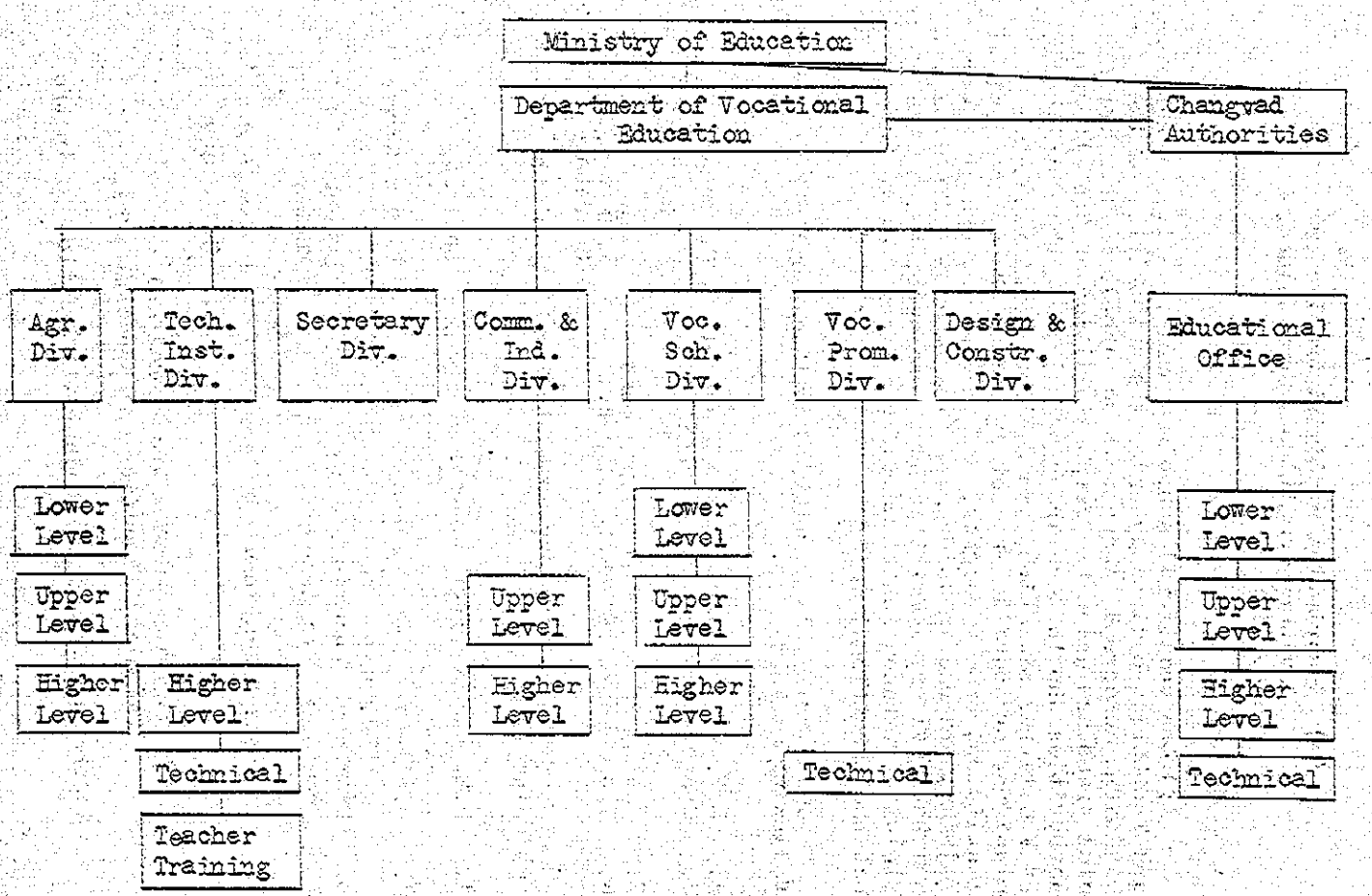
Under the new curricula a graduate of Matayom VI either from secondary schools or from upper vocational

schools may go to higher vocational schools in Building Trades, Engineering Trades, Electricity, Radio, Metal Trades, Auto-Mechanics, Commerce, Foreign Languages, and etc. The load of each course of study is about 50 per cent for practical work and another 50 per cent for academic - related subjects.

Graduates of higher vocational schools plus those students who have completed their first three years of work at any Technical Institute, may enroll at the Institute for a fourth and a fifth year of work in their fields of specialization. In these last two years of work approximately eighty to eighty-five per cent of the in-school time is devoted to practical work.

Those students who desire to do so, may after completing the five-year technical sequence, remain for an additional year at the Institute to pursue a vocational teacher-training programme. Upon satisfactory completion of this year of study each teacher will be regularly certified to teach in the public schools of Thailand.

(2) The Administrative Structure of the System



(3) Description of Administrative or Advisory Committees, Commissions, Councils

All the vocational schools around the City of Bangkok and Thonburi are directly under the authorities of the Divisions concerned, whereas those schools in the Provincial Areas are under the responsibilities of the Changvad Authorities who in turn are responsible to the Department of Vocational Education. No Advisory Committees, Commissions, or Councils are set up except the 4 Technical Institutes, one in Bangkok, one in Songkla, one in Nakorn Pajsima, and one in Chiengmai. The Executive Committees and the Advisory Committees have been appointed by the Ministry of Education to assist the Institutes to carry out the educational work.

Customarily the Executive Committee consists of the following members:

1.	H.E. the Governor of the Changvad	Chairman
2.	The Director of the Technical Institute	Vice-Chairman
3.	The Heads of various Department	Member
4.	The Changvad Educational Officer	Member and Secretary

Whereas the Advisory Committee consists of the following members:

1.	H.E. the Governor General of the Region	Chairman
2.	H.E. the Deputy Governor General of the Region	Vice-Chairman
3.	Prominent Education	Member
4.	Prominent Businessmen	Member
5.	Regional Educational Officer	Member and Secretary

(4) Relation between Vocational and Technical Education and Apprenticeship

As the vocational and technical education is in the

early stage of development in this country and the heavy industries as well as the great business - enterprises are still very few, most vocational and technical trainings have been centered in the schools of various types. The Apprenticeship Training is done in a small scale in Home Economics, Tailoring, Dress-Making, Commerce, Metal Work, Machine Shop, Auto-Mechanics, Electricity, Radio and Telecommunication Service, etc., and not yet well organized; but plans have been laid down to have such training at least 17 Centers throughout the country to meet the needs of the people for the beginning. When the Apprenticeship Programme becomes popular and needed by the rising of industries and services, the type of training will be accordingly expanded.

(5) Table 7. Number of Vocational Schools of Each Type: 1957

Divisions	Types of Schools	Number of Schools			
		Lower	Upper	Higher	Technical
1. Vocational School	1. Carpentry		36	20	
	2. Home Economics		36	36	
	3. Industrial Trades			17	
	4. Barbering	5			
	5. Leather work		1	1	
	6. Ceramics	2			
	7. Boat-Building	1			
2. Commerce and Industrial School	1. Building Trades			2	
	2. Engineering Trades			4	
	3. Tailoring			1	
	4. Commerce			4	
	5. Foreign Language			1	
	6. Arts and Crafts			1	
3. Technical Institute	1. Technical Institute			2	2
4. Agricultural School	1. Agriculture		14	4	1
5. Vocational Promotion	1. Building Promotion				1
All Divisions	Total	8	87	92	5

From Table 7. Number of Vocational Schools of Each Type one may be confused with set-up of schools under various Divisions of the Department of Vocational Education. The following explanation may throw some light on the readers. At the very beginning the Vocational School Division has been only concerned to the Lower and Upper Levels, but as the needs grow more and more, the Division is forced to extend to the Higher Level over one-half of its schools with more courses offered overlapping some other Divisions. The Commerce and Industrial Division is mostly confined to the Higher Level with the exception of the Teacher Training in Arts and Crafts School as Technical Level. The Technical Institute Division is aimly responsible to give opportunities to those graduates of the Higher Level another 2 years of technical training or 3 years of teaching profession. The Agricultural School Division is solely after the agricultural education ranging from the Lower, Upper, Higher, and Technical Levels. The Lower Level is being discontinued gradually. The last is the Vocational Promotion Division whose principal function is Guidance and Vocational Promotion Activities, but recently the Building Promotion School has been attached to this Division for graduates of the Higher Level to another 2 years of technical training in Building Trades and Carpentry.

(6) Types of Courses offered by the Department of Vocational Education in the Central and Provincial Areas

No.	Courses offered	Number of years			
		Lower	Upper	Higher	Technical
1.	Carpentry - Building Construction	*3	3	3	2
	- Cabinet-Making	*3	3	3	2
2.	Masonry		3	3	2
3.	Boat-Building	*3	*3	3	2
4.	Ceramics	3	3	3	2
5.	Barbering	3			
6.	Leather work	3	3	3	
7.	Home Economics - Clothing	*3	3	3	2
	- Nutrition	*3	3	3	2
8.	Building Trades		3	3	2
9.	Engineering Trades		3	3	2
10.	Auto-Mechanics		3	3	2
11.	Metal Trades		3	3	2
12.	Electricity		3	3	2
13.	Radio and Telecommunication		3	3	2
14.	Commerce			3	2
15.	Secretarial Service			3	2
16.	Printing			3	2
17.	Land Survey			3	2
18.	Tailoring		3	3	2
19.	Arts and Crafts		3	3	2
20.	Industrial Arts			3	2
21.	Teacher Training				3

Note. * The Lower Level has been gradually discontinued so that the students of this level may go to the Primary Extension for more of the academic work.

(7) Table 8. Average of Expenditure to 1 student during 16 years: 1942 - 1957

Years	Total Expenditure in Bahts	Number of Students	Average to 1 student in Bahts
1942	16,915,324	2,634,263	6.42
1943	18,932,794	2,748,540	6.89
1944	24,783,176	2,800,889	8.85
1945	27,831,680	2,704,287	10.29
1946	38,891,903	2,709,770	14.35
1947	60,001,644	2,668,557	22.48
1948	117,487,192	2,762,782	42.52
1949	269,742,072	2,886,234	93.46
1950	376,959,756	2,946,504	127.93
1951	460,280,480	3,034,445	151.68
1952	634,462,747	3,059,835	207.35
1953	806,391,562	3,237,072	249.11
1954	914,926,779	3,297,281	277.88
1955	934,463,957	3,393,527	275.37
1956	964,943,385	3,538,871	272.13
1957	1,012,649,982	3,750,155	270.03

Note. U.S.$1.00 = 20.00

(8) Table 9. Budget of Ministry of Education in Percentage to National Budget: 1932 - 1957

Years	National Budget in Bahts	Budget of Ministry of Education in Bahts	Percentage
1932	78,445,160	4,986,406	6.35
1933	82,168,324	6,031,494	7.34
1934	84,442,919	8,379,429	9.92
1935	97,876,898	10,095,390	10.31
1936	114,930,756	11,181,402	9.72
1937	132,614,169	12,054,677	9.09
1938	138,877,492	15,370,051	11.06
1939	78,391,940	7,419,233	9.46
1939-1940	169,115,945	15,320,922	9.05
1940	29,953,306	3,623,308	12.09
1941	211,487,087	19,392,906	9.12
1942	243,819,392	16,915,324	6.63
1943	280,755,362	18,932,797	5.96
1944	433,533,079	24,783,176	5.71
1945	628,137,742	27,831,680	4.43
1946	1,163,360,100	38,891,903	3.43
1947	963,471,279	60,001,644	6.23
1948	1,666,088,493	117,487,192	7.05
1949	1,598,022,020	269,742,072	16.88
1950	1,949,351,366	376,959,756	19.33
1951	2,499,206,174	460,280,480	18.41
1952	3,806,910,988	634,391,112	16.66
1953	4,033,712,870	759,255,819	18.82
1954	4,191,698,503	836,610,153	19.95
1955	4,180,002,519	827,756,911	19.80
1956	4,647,480,504	872,038,912	18.76
1957	5,069,990,082	904,352,355	17.83

Note. Budget in this Table included Allowance.

(9) Table 10. Educational Assistance Funds Which Ministry of Education Received From Other Sources Since Beginning to 1957

Year	P.E.P. Fund	Counterpart Fund	Total
1952	-	71,625	71,625
1953	33,350,037	13,785,707	47,135,744
1954	67,538,976	10,777,650	78,316,626
1955	98,147,044	8,560,002	106,707,046
1956	82,652,713	10,251,760	92,904,473
1957	92,986,327	15,310,300	108,296,627

Note. P.E.P. Fund = The Fund for Promotion of Education and Public Health.

Counterpart Fund = The Fund which Thai Government deposited in the Bank equal to the cost of materials which the United States sent in aid according to agreement.

(10) Table 11. Percentage of National Budget Spent for Vocational Technical Education

Year	National Budget	Department of Vocational Education Budget			
		Salary	Miscel-laneous Expendi-ture	Extra Ex-penditure	Total
1957	5,069,990,082	3,709,380	11,082,334	11,459,600	26,251,314

Note. Budget in this Table did not include Allowance. As looking at the figure the percentage of national budget spent for vocational and technical education is slightly over 0.5%.

(11) Table 12. Educational Assistance Funds Which the Department of Vocational Education Received from Other Sources in 1957

Year	P.E.P. Fund	Counterpart Fund	Total
1957	6,746,648	9,040,000	15,786,648

Note. The P.E.P. Fund and Counterpart Fund have been explained in Table 10.

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1. Introduction

The development of technical education in Viet-Nam has been hindered for a long time by the difficulties in political and economic order. Until 1945 there was no necessity of training the workers: the industry of transformation did not exist; almost all the manufactured products were imported. Only the enterprises of explotitation for obtaining the raw meterials necessary to the factories of transformation of the "Metropolis" were encouraged. The task of the Viet-Namese foremen and workers was restricted to the maintenance and the repairing of material and of machines for utility of the country.

It is, however, interesting to study a historical evolution of the system in education. The principal stages are as follows:

The Order of March 2, 1920 created the General Direction of Public Instruction in Indochina and made a professional education the branch of this Direction. Until 1939 education developed slowly as policy was restricted to the training of only the technicians for the disposal employment and was not to provide for the future necessity of economy.

In 1939 the relation between technical education and industry was realized, thanks to the appointment of the Chiefs of Service of Industry and of Armaments such as Technical Councilors of General Direction of the Public Instruction in Indochina. In 1940 a vigorous action was taken to this education by the formation of the permanent committee of industrial technical education which sits at the head of the employers. The accelerated apprenticeship began to develop in this period and many special sections were established everywhere in Tonkin.

In 1941 the condification of the legislation related to technical education was promulgated and it resulted in starting the normalization of the programmes of education. In 1944 the Inspection of technical education was organized and its status was confirmed by the Decision of January 26, 1946.

As a whole, the war 1939-1945 favoured the development of

technical education for a certain period, and when the relation of Viet-Nam with France was cut down, the authorities found themselves the immediate necessity to produce a part of manufactured products.

In 1945 we had in whole Indochina (Viet-Nam, Laos, Camodia) 77 schools or organizations and about 3,800 students together with technical education and the course of applied arts, as compared with 45 schools or organization and 2,000 students in 1935.

As a matter of fact, owing to the indifference of admistration in technical education, Viet-Namese teaching personnel is not well treated. The special personnel of industrial technical education in Indochina contains:

(1) with French title

(a) technical professors
(b) shop-forement

(2) with the title "indigenous"

(a) monitors for each country of Union
(b) workers' instructors.

This policy did not encourage the intellectual elite to follow the life of the technical education. Consequently, it considerablly complicated the problem of training the technicians and workers whom the Viet-Nam government should have maintained after the advent of its independence.

Bearing this destiny, Viet-Nam has no registered leaders of technical education. Therefore, the work to be realised in this domain is immense. After all, the education system which seems too lapsed and gives no answer to the exigence of native industry should be thoroughly inspected. Although Viet-Nam gained her liberty, we are still weak politically and economically, and need many well qualified workers, formen and technicans in the large work of construction and of economical redressment of the country. The technical education has the resposibility to train the personnel who can orient the post of production rather than the obscure employment of maintenance and of the repairing of material. All the

programs of coherent and logical action should be executed very soon. The essential points of this program are as follows:

(a) clarify the public opinion on the necessity of developing the technical education

(b) re-start the school establishment already existing.

(c) equip the new workrooms (ateliers)

(d) study the new program of the training of the labours appropriated to the industrial need of the country.

(e) encourage the young men to follow the life of technical education.

(f) renew the teaching structure and to elaborate the new status of personnel which should not be over unbalanced, compared with material advantages which could put out the technicians in a private section.

As we saw above, the project which the government proposes to realize in the domain of technical education is immense; it is no more possible only to rely some officials of the Direction of General Education as it has been until now. In 1955 the government, being aware of the complexity of problem, made an innovation to give an autonomy to technical education and to enact the Direction of technical education.

2. Organization

(A) Administrative Organization

(1) National formation

The government of Viet-Nam adhered, first of all, to the seting-up of a compact central core for technical education, from which ramifications start according to the teaching personnel as they permit in its structure.

In this effort, the Direction of technical

education and arts was established in the bosom of the Department of National Education on which the task to organize and administrate all the institutes of technical and artistic education falls and belongs to some extent.

Created by the Decision No.21-GD/ND of February 3, 1955, this Direction, placed under the authority of a Director assisted by two chief-inspectors (1 for technical education and 1 for artistic education) has two offices led by two chiefs of office.

(a) First Office

The attributions of first office are fixed as follows:

- questions interested in technical and arts education (principles, programmes, use of time)
- creation of technical schools and schools of art
- commission charged by the study of establishment of schools (technical and arts)
- material for use in the class and work-rooms
- administrative and social questions which interest the artists, painters, sculptors, engravers and decorators

(b) Second Office

The attributions of second office are fixed as follows:

- examination of admission in the technical and arts schools. The examination of entrance, examination of graduation.
- diploma-expositions
- relations with the local organisations- talent and legacy.

In addition to these offices, two inspection placed under the direct order of two Chief-Inspectors were established. They assist the Director, one in the organisation of vocational and technial school, and the other in that of the applied arts schools.

(2) Local formation

In a local formation, technical education is placed under the authority of local director of education (a) so far as it is concerned with the questions of administrative and financial order and under the authority of Director of Education with regard to the questions of technical order. These two authorities consult each other on the question of establishment and of organisation of vocational schools and for their good training. In a word, they keep the close contact and permanent and narrow collaboration in order to execute all projects of extension of technical and art education which would be envisaged by the government.

(3) Provincial formation

In each province, technical education is entrusted to the inspector of primary education. It is he who represents here the authority of Directors. He has the responsibility to start and to control the work-school and make occasionally all the propositions on the questions which interest the development of technical education.

Also, in the last formation of the new hierarchy of technical education in Viet-Nam, there are found the schools of crafts not yet freed from the primary education.

(a) The recent governmental decisions can lead the suppression of this intermediate organisation and confirm all the organisation of technical education the Direction of technical education.

In the management of the schools such as in the general organization of technical education, the direction of technical and arts education need to be enlightened by the advice of the competent personalities. From this point of view it is necessary to establish the plans of the relation between the course and the institutes of technical education which assure the training of the workers on one hand, the civil authorities and the diffrent users of this workers on the other hand. Consequently, the Councils of Administration and of Perfection were established in the technical and arts schools; the projects of creation, the local committees of technical education and the consultative professional commissions are under study.

These different councils consisting of the industrialists and the officials of the different ministries have to establish for their mission a narrow and permanent liaison and coordination between the vocational schools on one hand, and the establishment of industry on the other hand. Their task is to inform those responsible for education on the exact needs of industry, to take care of the school programmes in order to make progress in technique. The Secretaries of the State in Labour, in Social Action, in National Economy and in the Reconstruction, in National Education, in the Youth are the main interests.

In this task, the Councils of Administration and of perfection are led by the Association of the old students of technical schools.

Besides, the consultative vocational national commission clarifies the authorities of technical education on all the problems of vocational training, the needs of workers, professional specifications concerning a profession or the group of professions.

(B) School Organization

(1) Structure of Technical Education

The system of technical and artistic education which depends upon the public capacity covers in total 10 schools of crafts, 20 courses of domestic science, 4 schools of technical education of 2nd degree and 3 schools of applied arts.

(2) Manual Education of 1st Degree

School of crafts : 10 -- students: 750

Courses of domestic science : 50 -- students: 1,153

The ateliers-schools are the organisations of vocational education of primary degree for the purpose of training:

(a) the trained apprentices for the industries of the region where they settle down.

(b) the manually oriented candidates for the technical school of secondary degree.

In general, the duration of the studies is 2 years. This duration can be shortened or prolonged according to the objective to attain or the circumstances. The programmes of education consist of 2 parts:

1/- The programme of practical science - This programme consists of, in principle, apprenticeship of the work of atelier in the following three manual sections:

(a) section of ajutage and locksmithing

(b) section of forge, boiler-work and tin-ware

(c) section of joinery

2/- The programme of general education bringing on the elementary knowledge necessary to apprentice.

Course of domestic education - The courses of domestic education is offered to train the good artisan workers and the experienced home-workers. The duration of studies is 2 years. At the end of 2nd year the students having succeeded in the examination of graduation receive the "Diploma of domestic and family studies."

The measures will be taken in view of their transformation in the apprenticeship center. The students recruited by the concours among the candidates who have the certificate of primary studies receive a general study and

theoretical and practical professional education.

Apart from the regular students compelled to these conditions of diploma and to the complete school year (3 years), these schools receive the much greater number of apprentices who wish to specialise themselves in one or two branches of vocational studies, of which the duration varies from 3 to 6 months, according to embroidery, dress-making, cut, cooking, confectionery etc.. Any condition of diploma is not imposed to this category of studies. Also this reorganisation is aimed to open the door for every body, to the children of the rich family as well as the poor.

(3) Technical education of 2nd degree

Apprenticeship center: 2 -- students: 552

Technical college: 1 -- students: 311

Technical lycee: 1 -- students: 554

(a) Apprenticeship center

The apprenticeship centers aim to train the workers qualified to the certain number of professions of industry (ajutage, locksmithing, forge, boiler-work, joinery, electricity, internal combustion engine).

The duration of the study is 3 years, it is going to be changed to 4 years. This is due to the purpose of giving the students a theoretical training enough elaborated in order to lead a group among them towards the school of foremen. A sounding was taken near the students of the apprenticeship center and allowed to Administration of closing that the majority of the students wish to continue their study in the institute of superior degree and that the material situation of their family is not considered in most cases as a hindrance to the realisation of their project.

The students of 1st year are chosen by the concours among the candidates, the holders of the certificate of primary studies and among the students who graduated from the domestic schools. At the end of 3rd year, the students who passed the examination of graduation receive

the "Certificate of professional aptitude."

(b) Technical colleges

The technical colleges are the institutes to ensure the training of the workers capable to become the foremen in industry after a certain period of practice.

The students are recruited by the concours among the holders of certificate of primary studies aged from 12 years at the yongest to 16 years at the oldest.

The programme of studies are divided into the following ways :

Class of 7th) general culture and professional orientation
Class of 6th)

Class of 5th) professional training and speciality
Class of 4th)

Specialities are as follows:

- Ajutage
- Forge, boiler-work and soldering
- Joinery
- Electricity
- Internal combustion engine, steam-engine.

The students are approved by Brevet (Certificate) of Industrial Education, (B.E.I.)

(c) Technical school

Technical school aims at:

(i) to ensure the vocational education of the young boys, and sometimes of the young girls who intend to take up the industrial and artistic professions.

(ii) to give the secondary technical training which goes up to the end of the second term.

This admissions are announced after the concours among the holders of certificate of primary studies aged from 12 years at the youngest and to 16 years at the oldest.

After two years of common studies, the students are to be chosen between two branches:

(i) The mathematical technical branch consisting of the class of 5th, 4th, 3rd, 2nd and 1st.

(ii) The industrial technical branch consisting of class of 5th and 4th.

The programme of studies adopted in the classes of "Mathematical technique" aims at giving the students a solid foundation of physics and mathematics in addition to the fundamental notion of technology as well as of industrial design.

The approval of studies in the classes of industrial technique is the Certificate of Industrial Education, and that in the classes of mathematics technique is the Technical Baccalaureat which has been known as an equivalent of Baccalaureat of general education.

Beside the domestic schools, the apprenticeship center and technical colleges, Viet-Nam organised the other technical schools in which education is more elaborated and specialised, for example, such as School of Commerce, Higher School of Electricity, School of Public-works, School of Industrial Arts, School of Maritime Navigation.

These schools train the supervisors on the superior plan for industry, commerce and building.

Among the schools we mentioned above, the school of commerce is the only school placed under the control of the Direction of Technical Education.

(a) School of commerce

This school of commercial technical education was

established since the school year 1956-1957. It is for the young people of both sexes and gives the technical, economic, judicial and social training which are to them indispensable in the exercise of their profession in the public services as well as in commercial, industrial and banking enterprises. Education in those schools is arranged in such a way as after they finished the necessary stage to acquire the practice of works, the interested ones can go to the superior stage of these enterprises. The first 15 diploma-holders of each promotion have the option to enter the administration. They are appointed to the equivalent stage as the clerk of administrative services.

Admission is determined:

(i) by the concours which open to all the candidates, holders of Certificate of study of 1st cycle or of the equivalent diploma to that of Baccalaureat of 1st part.

(ii) on title, in the proportion of one quarter of number of the students to recruit.

Among the secretaries of national services and the old military accomplishing the same conditions as diploma, and having been the object of one proposition on the part of the head of service firstly, and served there more than 2 years in the Armed Forces.

The duration of the study is 3 years.

The studies are approved by the "Diploma of Commercial Studies".

(3) Artistic education

The school of applied arts

School: 3 -- students: 455

The school of applied arts aims to train:

(a) the qualified workers and cratsmen who, by the adapted instruction and directed apprenticeship, can help in

taking back the national artistic traditions.

(b) the artist designers or technicians capable to help the chief of enterprise and, in addition, to become the decorators of talent.

There are three in Viet-Nam at present.

one in GIA-DINH	Specialities taught	(section of graphic arts	(under the section of design, under the section of etching and lithography
		(section of building	
one in BIEN-HOA	Specialities taught	(ceramics (bronze (modelage	
one in THU-DAU-MOT	Specialities taught	(cabinet work (decoration (design of furniture (sculpture (lacquering	

The duration of studies in these schools are 4 years (1 year of preparatory and 3 years of normal course).

The programme of studies consists of one part of general education, of technical and of professional education.

The admission is decided by concours among the candidates aged from 14 years old and the holders of the Certificate of primary studies.

The studies are approved by "Certificate of Studies of Applied Arts".

(C) Private Education

Together with the diffusion of technical education, the private schools are to be well taken into consideration. In fact, 37 courses of vocational industrial

training and domestic education of 1st degree and technical schools of 2nd degree were established by the particulars and exempt technical and vocational education on the different branches of industry and of working classes. In other part, 37 courses of accelerated training established by the Department of Labour are given in Saigon and some other important center of the country. These courses and schools are taken by 4,089 students under the direction of 163 professors.

In this domain, we have to consider the industrial societies and enterprises. Thus, in the bosom of administration center, the Management (Regie) of the railroad and the society of plantations of rubber in Xuan-Loc, in Dau-Tieng etc... (in red lands) possess their proper ateliers and the course of vocational training.

These private schools will be, in future, controled much strongly by the Direction of Technical Education which guides them in the choice of the programmes, and in the selection of the instructors.

(D) Teaching Personnel

The teaching personnel of the institutes of technical education are divided into two groups according to the training being taught: in one part, the training of profession, and in the other part, a general education -- mathematics, sciences, languages, etc.

The primary group is essentially composed of monitors and instructors who were recruited among the holders of Certificate of Industrial Education having already staged in industry. Practically there exists no systematic pedagogical training, neither before the recruiting, nor during the exercise of the function.

The second group is composed of the professors who proceeded from a general education, primary or superior primary, detached from the institute of technical education. These professors generally received the educational training, without any application to the training of technical education.

Each group of the teaching personnel has his proper status (enclosed in an annex the table of salary of personnel of technical education)

For many years, the technical schools have suffered and will suffer more from the great shortage of teaching personnel.

This situation is due to the following reasons:

(a) The recruiting has been practically suspended since the event of 1945.

(b) The personnel remaining in service - who is less than sufficient - is almost at the age of retirement.

(c) Material situation to the personnel is worse than the holders of Certificate of Industrial Education.

As a whole, as already told above, this peronnel is only scarcely benefited by the pedagogical training, sometimes it leaves much to be desired. It is, therefore, impossible to hope for obtaining a good result, in this condition, the value of equipment and of organisation and the programmes.

Thus, the resolution of the problem of teaching personnel of technical education is offered under the many aspects, first, the problem of amelioration of personnel in service will be done by establishing the course of perfection during the vacation, secondly, the problem of the training of new personnel will be considered by establishing the special section of training of the instructors.

It will be reasonable that the professors of technical education should be trained in the specialised normal schools studing in liaison with all the orders of education yet having their proper characters.

Meanwhile, lacking in a sufficient method, the Direction of Technical Education can only incorporate "the section of training of the instructors" in Technical Schools which are already working. In addition to the summer course, the Direction organised the stage of perfection in the United States. Some dozens of monitors have already been sent there regularly since 1958.

(E) Programmes-plan of Study

The different categories of technical schools have the programmes which answer the purpose. This programme elaborated by the advice of professors, in collaboration with the advice of administration and of perfection of school, is approved by the Secretary of the State to the national education upon the favourable decision of the Direction of Technical Education.

The programmes are elaborated taking the following principles into consideration:

(1) The programmes should answer the needs and the demands of industry in this country which is still under-developed economically. Also a border consultation should be done in close relation with the public services and important private enterprises which are capable of employing the young people who graduate from the different technical schools, and are going to master their thorough knowledge later. The Department of Labour and the General Direction of Plan have equally the right to speak.

(2) Technical education rejects a purely manual training. It trains the workers to enable to reflect, to use their intelligence, on their knowledge, on a manual application enough extended to solve the technical problems which are more or less complicated. It gives to the students the polyvalent training which permits them to acquire a large view on the whole operations which will be required in the trade association. All the workers should have a valuable idea on their profession.

(3) The technical training should go with the general training (intellectual and humanistic).

This conception will permit to develop a human value fully. The workers will also acquire the dispositions of attention, of prompt decision, of exact reaction and of the great flexibility of spirit. This aptitudes supported by theoretical and technical knowledge help the workers to understand the technology of operations to be accomplished. After all, the educated workers

who understand the operations put the questions and propose the ameliorations.

As considered, the programmes in the different technical schools contain the technical, theoretical, practical education of the profession and the general education contains physical, intellectual, moral, civil and social training of the young people, and a domestic training for the girls.

It tends to give the sufficiently polyvalent training supported by a general and technical training, so that the students can lead, in future, after having acquired the indispensable practical experience, the workshops and can participate in the industrial evolution of the country.

The time tables are carefully made to assure an equivalence between the technical training and general culture.

A large place is reserved to the conference of workshop and laboratories. They also expect many visitors in the factories, gentry of mechanical construction, the buildings of navigation to let the students acquainted with the machines in teaching and also to let them remember it after they graduate from schools.

In the conception of programmers, as in the organisation of technical education, they can not, of course, make a clean sweep of the past, nor the practice in other countries. Nothing disturbs Viet-Nam in introducing the programmes of foreign technical schools, particularly France or America: what can be realised is easily adapted and it helps the economic development of the country and national industry. Our duty is to create the doctrine of technical education in the light of this synthesis, which is purely Viet-Namese having its proper characters.

(F) Future Plan

Among the actual plan of the organisation of technical education outlined above, some have been realised, but many rest still under project. The realisation of this plan may be normally followed later, but there will also be many difficulties. Meanwhile, the Direction of Technical Education sets to work to solve them better. The much important problems are:

(1) Equipment of technical schools

Differed from the school of general education, in the technical schools a practical education occupies a large part which reaches 1/4 or even 1/3 of a total week time-table. It requires a modern material and a complete equipment to have a good result.

Now, the material which exists in the technical schools is over used for a long time, strongly damaged or sometimes entirely broken after the war. This shortage in the material becomes serious day by day.

Recently, thanks to the help in equipment brought from many friend-countries, a part of the material and of equipment of some important schools was renewed and it looks even modernised, but this is not yet enough.

To cope with this difficult situation, most of the schools have to use all the available material until completely damaged. Let us hope in the support of the government and the effective help from the friend-countries that the project of modernisation of the equipment of the technical schools would be realised according to the plan provided.

(2) Language vehicle

Until today, the language vehicle in the institute of higher technical education was French. It must be replaced by the Viet-Namese language. Yet sudden change of a regime to the other will not miss the provoking of the harmful pertubations to the interest of the country. Also the application of this principle will be realized gradually, and be necessitated a period of transition and of preparation.

In the technical schools of 1st degree, education is exclusively done in Viet-Namese. In the inferior course of the technical education of 2nd degree, it is also done in Viet-Namese. As a progress is realized in the study of foreign languages (French and English) the introduction of the courses in other languages is authorised. This flexible method to conciliate the exigences of a souvereignty in one hand, and in the other hand, the material

possibilities will make the young people to follow later on, with fruit, the education given in the higher technical schools.

The editing of technical lexicon in the course of preparation and a programme of action actually exercised are the actions taken to shorten this period of transition as much as possible.

This programme will consist of the following principal points:

(a) Training of commission for the elaboration of technical terminology.

(b) Training of commission for the editing of classical books of technical education.

(c) Attribution of price to the well edited books of technical education.

(d) Publication of books edited by the commission or the excellent books by the department of national education.

This well executed programme still permit us, as we think, within 5 years, to live in secondary and higher technical schools an education exclusively in national language as in the independent country. As a whole we insist on the point that the use of national language will not hinder our students from the study of French and English which are the linguistical way to open a large horizon on the possibilities of modern science in full evolution.

3. Conclusion

The development of technical education is in rythmical function of the industrialization of the country. We have to seek to obtain a balance between those two factors under the serious pertubations of national economy.

Besides, the development of technical education favours

that of industry, of commerce, of agriculture and crafts, and raises the standard of life of the workers. This is the form of fight much effective against the Communism. The free world takes advantage of it.

The Viet-Nameso government made a great effort for endowment in the country on the technical and artistic schools replying the exigence of the young independent state. In this effort the government spent a great amount: $32,117,800 in 1958 for the budget of technical education. It is, however, only the beginning which should be increased more later on.

It will be difficult for the government to do it with their weak financial method.

It is true that in this circumstance the people in Viet-Nam expect the help from the friend-countries in a free world. We, however, have to contribute ourselves, because the building of technical education can not be construcoted, nor the industry of the country be realized unless all the national resources would be mobilized to this effort.

Table of salary of teaching personnel of technical education

Grades and classes (1)	Category (2)	Indication of salary (3)	Monthly salary (4)	Observations (5)
A.-Technical professors of secondary technical education in 2nd degree	A	-	$	In addition to monthly salary, the personnel of technical education have the right for the monthly allowance for family & expensiveness of life, which is culcurated on the following base:
-Professors of principal technique outside class	(after 3 years)	1,000	12,240.00	
	(before 3 yr.)	940	11,505.60	
-Prof. of prin. tech. of 1st class	(after 3 years)	890	10,893.60	
	(before 3 yr.)	840	10,281.60	
-Prof. of prin. tech. of 2nd class		790	9,669.60	
-Prof. of prin. tech. of 3rd class		740	9,057,60	Allowance for family:
-Prof. of prin. tech. of 4th class		690	8,445.60	Wife...$350 Child (1)...$250
-Prof. of tech. of 1st class	(after 3 years)	640	7,833.60	Allowance for city life:
	(before 3 yr.)	590	7,221.60	Interested...$1,200
-Prof. of tech. of 2nd class		550	6,732.00	
-Prof. of tech. of 3rd class		510	6,242,40	Child (2)..$350 Wife.....$350
-Prof. of tech. of 4th class		470	5,752.80	(1) unlimited number (2) until 5th child
-Prof. of tech. of 5th class or probation		430	5,263.20	

Grades and classes (1)	Category (2)	Indication of salary (3)	Monthly salary (4)	Observations (5)
B.-Technical professors of secondary technical education of 1st cycle	B			Accessible only to the professor who has the diploma of old Higher School of Arts of Hanoi.
			$	
-Prof. of principal technique of class except		720	8,812.80	
-Prof. of prin. tech. outside class		680	8,323.20	
-Prof. of prin. tech. of 1st class		640	7,833.60	
-Prof. of prin. tech. of 2nd class		600	7,344.00	
-Prof. of prin. tech. of 3rd class		560	6,854.40	
-Prof. of prin. tech. of 4th class		520	6,364.80	
-Prof. of tech. of 1st class		480	5,875.20	
-Prof. of tech. of 2nd class		440	5,385.60	
-Prof. of tech. of 3rd class		410	5,018.40	
-Prof. of tech. of 4th class		380	4,651.20	
-Prof. of tech. of 5th class		350	4,280.00	
-Prof. of tech. of 6th class or probation		320	3,916.80	

Grades and classes (1)	Category (2)	Indication of salary (3)	Monthly salary (4)	Observations (5)
C.-Professors of practical works	C			
			$	
-Prof. of principal practical work outside class		480	5,875.20	
-Prof. of prin. practical work of 1st class		450	5,508.00	
-Prof. of prin. practical work of 2nd class		420	5,140.80	
-Prof. of prin. practical work of 3rd class		390	4,773.60	
-Prof. of prin. practical work of 4th class		360	4,406.40	
-Prof. of practical work of 1st class		330	4,039.20	
-Prof. of practical work of 2nd class		310	3,794.40	
-Prof. of practical work of 3rd class		290	3,529.60	
-Prof. of practical work of 4th class		270	3,304.80	
-Prof. of practical work of 5th class		250	3,060.00	

Note - The maximum of indication for the national frame is 1,200.