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PLANNING THE FUTURE DEVELOPMENT

OF THE TARLAC COLLEGE OF TECHNOLOGY

United States Agency for International Development, Manila
1966

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Tarlac, Tarlac, Republic of the Philippines

A Report to the United States Agency for International Development
and to the College, Summarizing Matters Considered
During the Period of July 5 - August 16, 1966

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PLANNING THE FUTURE DEVELOPMENT
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Established by an act of the Congress of the Philippines and officially approved on June 19, 1965, the Tarlac College of Technology was established through a merging of the then Tarlac School of Arts and Trades, located at Tarlac and the National Agricultural School, located at Camiling. This new college, which formerly had operated as two institutions under laws and regulations governing secondary and special vocational schools, now became independent of such rules and became responsible directly to its own Board of Trustees, ex officio members designated in the authorizing act.

The history of Tarlac College and the details of its establishment need not be detailed here, for they have been well reported in various documents issued by the College and, particularly, in the comprehensive and excellent First Annual Report of the Acting President, Tarlac College of Technology, prepared by Mario P. Manese, for the fiscal year, 1965-66, along with data on current operation and a forward looking plan for the future.

Shortly after the formation of the new college was approved, Governor Benigno S. Aquino, Jr. of Tarlac Province -- a member of the College Board of Trustees and a strong believer in the importance of education to the people of a democracy and of technical education in a developing country such as the Philippines -- requested the United States Agency for International Development to bring two consultants from the United States to advise and assist the College in the evaluation and formulation of its plans for the future. Consultants were to be sought who had worked actively in an American junior college -- or community college as it is ordinarily called outside the State of California -- and who had had a variety of administrative

experience, preferably in a college or colleges where vocational training at the technical level is an important element of the educational program.

By action taken on June 9, 1966, the Board of Trustees of Tarlac College of Technology passed the following resolution:

RESOLVED, that the TCT Board of Trustees hereby accepts with gratitude the offer of the USAID through the representation of Governor Benigno S. Aquino, Jr. to send two experts on staffing pattern, curriculum development, and financing to the Tarlac College of Technology.

RESOLVED FURTHER, that the TCT Administration, faculty, personnel, and students are hereby enjoined to welcome the said American experts.

The two men who have worked in Tarlac Province during the past six weeks were invited to spend from two to three months with the College, but this length assignment proved impossible for them; and so arrangements were made for them be on duty for the period from July 5 to August 16. The pages which follow present their report.

METHOD OF PROCEDURE

Actually, this should not be dignified by the term "report", and certainly it does not purport to be a survey in any sense of the word. Rather, it is an informal description of some of the elements of the situation which have particularly impressed themselves on us, the consultants, plus something of an indication of how we have worked while at the school, and, finally, a few rather generalized suggestions. Principally, it is merely an effort to put on the record our summary of matters considered while we were in Tarlac.

As will be seen from the following paragraphs, we have considered that our greatest responsibility was to develop certain attitudes on the part of the entire College staff; and, whatever our contribution may have been, it will not be measured by the length or significance of this report. In other words, unlike the usual procedure when a school survey is scheduled and on which outside specialists are imported to work, the report is merely incidental.

As a matter of fact, there already have been enough studies and formal series of recommendations by teams, American and Filipino, on the school situation in the Philippines that perhaps the last thing needed is another report. That these publications have made significant contributions seems somewhat doubtful since the conditions on which they reported remain in most cases but little different today from what they were then--and, after the studies were completed, most of the recommendations have been disregarded, for one reason or other. Perhaps, even, the studies were never widely read;

and certain it is that today, six years after the most extensive ones were issued, one even finds some difficulty in locating copies of them.

Knowing of these previous studies, particularly so since the teams which conducted them were from our own home neighborhood in the San Francisco Bay area, we two consultants decided to spend a week or so at Tarlac College ourselves looking at the school first-hand before we started to read what had already been written about other Philippine high schools and colleges; and we did not even discuss the matter before leaving California with those who had conducted the surveys.

Once we had become acquainted with the local situation and had had time to form some tentative conclusions, we compared our opinions with those already on paper as a result of the surveys mentioned and found that for the most part the same conditions which make it difficult for many Philippine high schools and colleges to function adequately in behalf of the people of the Philippines are the very problems which are delaying the realization of its objectives by Tarlac College. This being the case, therefore, we have decided to append as a final section of this present statement about Tarlac College a number of quotations from other reports which have particular pertinency to the Tarlac situation (even though in some cases they apply to a specific school rather than to a generalized situation).

We have done this (a) to avoid repeating the obvious; (b) to show that local conditions are not unique; (c) to attempt to help whoever may read the present report to capitalize on the really extensive work which

has gone before -- and which, in the case of some of the surveys, involved the labors of fairly large teams of researchers and teachers working for up to four years; and (d) in hopes that we may stimulate further consideration of the important recommendations made in these studies.

The series of quotations is included at the end of this report, not because it is unimportant, for probably it is the most impressive and significant part of these contents, but because the insertion of so many disconnected abstracts at this point would interrupt the continuity of what we want to say.

Perhaps we should explain, at this time, that we consultants have spent many days on the two campuses of Tarlac College, visiting classes, studying materials prepared by the College, consulting with administrators and teachers, becoming acquainted with students, and, even on occasion, conducting classes. To our way of thinking, our most important work on the campus has taken place in the series of nine meetings we have had with instructors divided according to area of specialization. We have also attempted to work with individuals, teachers, and administrators, in the development of new approaches to certain problems where we felt we might be of help. We have interviewed members of the community, visited home industries and the largest industrial operation in Tarlac, met with government officials, and discussed educational conditions in general and those of Tarlac in particular with educational leaders of other provinces and of the nation. We have visited a number of other schools and colleges, including several which have similar objectives as Tarlac and those to which Tarlac students sometimes transfer. We have even gone to a neighboring province

to see the beginnings of a "community college" for that area. We have met with the Board of Trustees of Tarlac College, and we have taken advantage of the help which USAID personnel was most willing to give us.

A few words should be said at this point about what we have tried, and hope that we have been able, to accomplish:

1. In the first place, we have attempted to help the Tarlac staff look at themselves through the eyes of someone who can be a little more objective about the present situation than they and who comes with a background different from theirs. We hope that we have been able to help them take pride in some of the things they are doing so well and to begin evaluating some other local practices.
2. We have tried to challenge the members of the staff and to leave them in a questioning frame of mind -- one which will encourage them to continue saying, as we have done: Why are we doing this? What are our students like? What becomes of our students after they drop out of school or graduate? What really are our purposes? What must we do if we are to achieve these purposes? Should a college operate a high school?
3. We hope that we have shown that instructional planning is necessary if a school is to accomplish its purposes, rather than accepting a curriculum and courses of study from some other school, and that such planning must be done by teachers and administrators and service personnel working together.
4. We think we have showed that the offering of independent courses is not sufficient to produce an educated person and that, for example, such departments as mathematics or science and the technical

areas must work together to guarantee that the academic education has significance for and contributes to the student's preparation for an occupation.

5. We have worked hard to develop the understanding and belief that the whole college program must be developed in terms of what students want and need and that if this is to be done the college must know more about its students and be prepared to serve them in other ways than by merely offering courses.
6. And then, too, we hope that we have become sufficiently involved in this formation of a new college that we can advise specifically USAID or any other agency which we may be able to interest in helping Tarlac College become a demonstration of what can be done to serve the people of an area in their continuation of education or in the preparation of technicians.

At no time in our stay at the College have we attempted to dictate administrative form or procedures, the organization of curricula, the content of courses, or any other matter. We have emphasized repeatedly that our assignment, as we saw it, was to raise questions, to stimulate local study, to encourage local attempts to solve problems, and to show how local action can be organized. Perhaps had we worked out curricula in detail or written outlines of courses--we did make suggestions, and we did develop samples--we might have had more to report herein; we have the conviction, however, that what we have tried to accomplish in a limited period of time will have much more lasting value.

We would suggest, incidentally, that provision might well be made for one of the present consultants or at least for someone who can become

acquainted with our work at the College, to return within a couple of years for a look at what has happened and for perhaps giving a renewed bit of enthusiasm. The present stay has been too short, we suspect, for us to make much more than a start on the objectives we set for ourselves.

At this point we would like to mention some of the assets of the college, and, although they are not materials, they are very tangible.

The students, although young by American high school and college standards, are interested and eager to learn. In manner and appearance, they are charming. They are long-suffering--as evidenced by the work load they endure, the inadequate facilities in which they work, and their willingness to accept direction. (An American would wish, perhaps, that they were less meek and willing to be regimented and that they were more ready to question). That they are more intelligent than the average young Filipino their age seems likely; not only from their work in class, but also from the position that they have reached on the Philippine educational ladder and its series of selective steps--although, we should point out, the school has little objective data about its students.

The administrators and teachers are devoted to and interested in their students. Many of them are continuing their own education, and nearly all seem to have a sincere desire to improve their teaching. They too are long suffering, attempting to work in a physical environment which, for the most part, makes teaching extremely difficult, and attempting to teach with practically no books or supplies or equipment. The administrators, too, appear devoted and efficient; and they also are anxious to improve their own qualifications and to serve the school.

Tarlac College is fortunate in its community supports--other than financial, one is forced to point out. It is particularly fortunate, too, in having the personal backing of the governor of the province, who sincerely believes that its graduates in technology will be the salvation of Tarlac. And, further, it is fortunate in being located in an area where varied industries are developing and can be developed and where there will be increasing demand for its graduates.

We two consultants are deeply grateful to President Manese and the entire staff of this college and to the community for receiving us in such a delightful manner, with such friendliness and with such faith that we could be of assistance.

SOME IMPLICATIONS OF THE FOUNDING ACT

It is time, now, to point out a few very significant conditions of the establishment of Tarlac College of Technology as stipulated by the founding act, conditions which have a direct bearing on what it is today and on what it can become.

In the first place, the new institution is established as a college, and the purposes assigned to it are those which normally are undertaken by a community college and not by a high school. All this despite a provision that "no personnel of the converted schools shall be laid off, demoted in rank or reduced in salary." Certainly there would be unfairness in a sudden change which would dispossess faculty personnel of their acquired rights; but certainly also the college situation is complicated by the fact that the majority of its faculty members have been and are high school teachers and that as a high school faculty their composition does not furnish the balance of competencies needed by a technical college.

A second significant fact is the provision that in addition "to the present appropriation for Tarlac School of Arts and Trades and Tarlac National Agricultural School, one million pesos is hereby authorized to be appropriated for the operation and maintenance of the Tarlac College of Technology during the fiscal year nineteen hundred sixty-six. Thereafter, such sums as may be necessary for the same purpose shall be included in the annual General Appropriations Act." And as everyone associated with the college knows, no million pesos has been forthcoming.

The third particularly important fact about the founding act, and perhaps the one which seems most important to us is the new freedom it

gives from restrictive rules imposed by the national bureaus to govern secondary and vocational schools, for the Tarlac Board of Trustees is empowered to "prescribe rules for its own government, and to enact for the government of the College such general ordinances and regulations, not contrary to law, as are consistent with the purposes of the College as defined in Section two of this Act."

These three points take on particular significance in view of the following facts:

1. The College is still operating a full four-year high school program (although this year it has taken the first step to reduce the number of entering high school students).
2. The College is attempting a task which we think almost impossible, even if it had unlimited funds, namely: offering a four year-high school program, offering a two-year technical program, offering the first three years of a training program for industrial arts and homemaking teachers (with a fourth year in the offing), and attempting throughout to prepare all students for jobs and for transfer to a university. And this does not cover the additional assignments given it by the founding act and on which it has not yet been able to start.
3. The College is so short of funds that it cannot hope to accomplish the purposes for which it was established, to say nothing of carrying the much more extensive burden it has shouldered. Its library is almost non-existent, in terms of college or even high school standards; it has but few textbooks

for use by its students; its shops and, even to a greater extent, its laboratories are so unequipped that either students must be instructed through lectures, or the size of the class must be limited to such an extent that instruction becomes uneconomical; money available for necessary supplies, maintenance, and repairs is pathetically inadequate; although many shop facilities could be made acceptable, much of the physical plant is completely unsuitable for instructional purposes, and lighting and sanitary facilities are either so inadequate or non-existent as to endanger the physical health of students (except for some hose bibs in the yard, we have been unable to find any place where students can even wash their hands) and maintenance throughout is poor. Teacher salaries appear to us to be dangerously low for the development of a qualified staff of high morale. The point certainly should be made, however, that these conditions do not exist because of mismanagement but because of the simple lack of necessary funds.

SOME MAJOR SUGGESTIONS

After we had been at Tarlac College for a few days, we felt forced to conclude that it was never going to become a good college without greatly increased funds. At the end of our stay, we feel just as strongly that unless additional income is available, and available soon, the College is going to disappoint the Congress which established it and the people of Tarlac who have put their faith in it and that without receipt of a major appropriation, such as the million pesos already allocated to it but not received, it can never accomplish its purposes. Still feeling that the College must have money, we have nevertheless come to an appreciation of what it is already doing and have attempted to point out some devices whereby over a period of time, and even with such limited income as it now has, it may be able to accomplish more than it is doing. These suggestions for reorganization are important, we think, and we believe they are deserving of consideration regardless of the financial situation, but in the total budget they represent relatively small amounts; and nothing -- not even devotion and effort and long-suffering -- can substitute for needed finances.

We have arrived at five major suggestions in this regard, and we feel that these are significant and should be studied by the College itself and that specific recommendations in regard to them should be made to the Board of Trustees for action:

1. We believe that Tarlac College should work towards becoming a community college, gradually perhaps at the beginning but with just as much speed as possible, divesting itself of the high school it now continues to operate -- perhaps closing out the first

two years before long and then later eliminating the last two years. This action would then permit Tarlac to develop a strong college program of two, and quite probably three or four years. More about this later.

2. We feel that the College should start working immediately to determine those subjects which are not important to all students and as a result of this study reduce drastically the number of required courses -- which now amount to perhaps 28 or 30 for the four semesters of a two-year college program and which probably should become fewer than 10. Thus the post-high-school program can be made not only more attractive to students but also more valuable to them; and at the same time it can be expanded so that it will serve many, many more of the needs of individual students and of the community. We would hope that it would work towards a minimum of required and a maximum of elective courses and that in so doing it would question the value of most of the subjects traditionally required in a Philippine college. The recommendations it makes to its Board of Trustees well may be a startling approach in the Philippines to a realistic educational offering.
3. We recommend that the College immediately consider how it can eliminate the present system of sectioning students, which provides for no adaptation to individual needs, interests, intentions, or abilities and which cannot help but be prohibitively costly in terms of teacher time.

4. We recommend, further, that Tarlac College take the leadership in revising the school day for all post-high-school students by reducing the daily number of subjects from the present average of seven or eight to but three and that in so doing it will make possible the opportunity for students to study, use the library, solve problems, and think. Such a step would not only permit real learning instead of memorization of lecture notes, but also it would reduce the number of teachers needed by from somewhere between 35 and 50 per cent, or, stated conversely, it would permit an increase in the number of students handled by a faculty of the same size as that now employed. The resulting savings from this change, added to the money saved if suggestion No. 3 above is put into effect, would permit the increasing of teacher salaries, and the provision of needed books, supplies, and equipment.
5. As changes result from these suggestions, a number of special services which are not currently available will have to be provided for students and teachers. More detailed suggestions in this regard will be included later in this document.

Perhaps we should follow these suggestions in more detail, pointing out the advantages and the problems inherent in them.

Elimination of the High School

With the present high school population numbering more than two-thirds of the total enrollment, an adequate program with a variety of subjects cannot be offered from the resulting small college. If the high school can be eliminated in its entirety or decreased in size -- and of course it too will have troubles as it becomes smaller -- then a good post-high-school program can be developed. This development would have the further advantage of making the post-high-school offering more appealing to students and would give it the opportunity to become a prestige institution -- at the moment, students wonder aloud why they should remain after graduation in a school which has the same teachers, the same buildings, the same lack of facilities, and even, in some cases, the same courses they have already had.

Such a change would put the age of those who attend or complete the college at more nearly the employable minimum, and thus the program can become more truly oriented towards occupational training.

By working with an older age group, the college would then be able to accomplish a higher level of technical training. And, further, more students would be able to get their agricultural or other technical training in the neighborhood of their homes instead of having to go away to school in some other part of the Republic.

The two biggest problems which the college will have to solve, if it moves in this direction, have to do with whether other Province schools can absorb the high school students who no longer will go to Tarlac College and what is to become of the teachers guaranteed

continued teaching positions in the College's high school. With regard to the latter point, we might suggest a few possibilities:

1. As high school teachers retire or resign or die, they should not be replaced, unless with teachers qualified eventually to teach at the post-high-school level. Whenever possible, substitutes would not be appointed to fill vacancies caused by teachers on leave.
2. As many high school teachers as possible should be retrained and prepared to teach at the post-high-school level.
3. Some teachers may be able to work into some of the service positions which we think should be established if there is to be a major revision of the organization.
4. Possibilities of using the teachers in classes taught for the community should be explored, for there seems a real demand on the part of Tarlac adults for education (witness the crowded evening classes at the college, in which adults and also some younger students unable to enroll in the day school pay 130 pesos tuition a year just to attend shop classes where the equipment is so limited that most instruction has to be given through lectures). Further, the college should explore the possibility of using some regular teachers for a split assignment, half day and half evening, and thus save money by not paying overtime for some of the instructors who currently are teaching a double assignment.

5. If the college finds itself having more technical teachers than it can absorb, it might find advantage in opening its shops to industrial arts students from the neighboring high schools -- at cost.

Our feelings about the advisability of a two- versus a three or four-year post-high-school program have undergone some revision since we started considering the matter and discussing it with College personnel; and certainly we would recommend careful study by the College of what its eventual span should be. The two-year pattern seems reasonable at first glance, for it follows the usual American junior college set-up and because it would be less costly in the long run to community and students. At the end of our visit, however, we are leaning towards a three or four-year set-up. Such a structure would have such advantages as the following:

1. It would permit a higher level of technical training than will two years added to the present high school achievement of students.
2. It would give occupational training to students at a time when they are closer to an age that will permit their employment.
3. It will place the training in homemaking closer to the age when most of the girls are likely to get married.
4. It will help bridge the gap between high school graduation and university requirements, for the relatively few who will continue to a university. This gap between the high school and the university lower division is now probably at least two years greater than it is in America.

5. It will provide a student population big enough that the offering of electives and numerous different curricula will be justified.
6. It will enable the college to offer up to two years of training for skilled labor to those who can stay only a limited period of time beyond high school; it will permit three or four years of technical training, at about the level normally taught in an American community college; it can provide a four-year teacher training program for graduates in industrial arts and homemaking; it can well become eventually, for some students, the lower division of a university.

All these values are based on the assumption (a) that students will be able to make choices in the selection of their college program, (b) that courses of varying lengths -- from those running only a few hours of very specialized training to those which require four full years of technical and related work -- will be offered, (c) that all of these courses will be available to adults as well as to young people, and (d) that one can register for a single course or a combination of courses, perhaps in the evening as well as in the day.

In the meantime, if the College chooses to go in this direction, and until such time as the high school division has been eliminated, it will want to consider making the high school shop offerings exploratory designed for the industrial arts or practical arts level, rather than trade training. The same thing could apply to homemaking. In both cases, a step would have been taken to reduce the number of periods in

which students are presently assigned to the classroom -- and this is good, even though a reduction in the number of academic subjects is even more needed.

We are aware that the development of an exclusively post-high-school program at the agricultural campus will be more difficult than at the Tarlac campus, and certainly a lot of study will be required there as to what the future should be.

Reduction in the Number of Subjects Studied at One Time

As was pointed out already, we feel that one reason for reducing the number of subjects taken by a student at any one time is to reduce the number of teachers required to teach a given number of students, for twice as many teachers are needed when a student takes eight subjects as when he takes only four.

As a matter of fact, the ratio between students and teachers on both campuses of the total Tarlac institution is just about 1 teacher to 17 or 18 students, although this includes as teachers some personnel who could more properly be classed as administrative. Further, the College has indicated on occasion that it hopes to develop a ratio of 1 to 15. We feel that American experience shows that a ratio of 1 to somewhere between 30 and 32 or 33 is not at all unreasonable for a college -- although in a technical college the ratio might well be more like 1 to 25.

Although there are strong financial reasons for reducing the number of classes studied at any one time by a student, the educational reasons are even more demanding. We do not feel that a student can do high school

or college level work when he must study so many different subjects and when his day is so filled with going to class. Further, the present schedule of classes makes it impossible for students to have the experiences in music or other cultural electives they have the right to enjoy. And it eliminates the possibility of their taking some of the courses which are directly related to citizenship and life in the community which are so badly needed by the nation as a whole.

Not only would we anticipate that the number of courses will have to be reduced, but we would like to urge a really serious consideration of what should be studied and of what will return value to the student and/or community. For example, we have serious doubts about requiring all, or even many for that matter, to study all four courses -- algebra, geometry, chemistry, and physics. We question the need for Spanish instruction for most students -- although the present Philippine law seems to require a specific number of units for graduation from a four-year college.

We hope that the College, after due consideration will see fit to propose to its Board of Trustees a completely different curriculum pattern one based on sound educational reasons rather than on tradition or the usual custom in Philippine schools. We would oppose strongly the requiring of college transfer courses for any except those who know they will need them to enter a university. We would suggest the deferral of such requirements as two years of Spanish -- if its need must remain a requirement -- until after the transfer student has completed his work at Tarlac and gone on to another institution.

At the same time we want to reduce the number of requirements, we would hope to see added to the curriculum as elective courses in such fields as life science, and we would wish for an expansion of the social sciences -- perhaps to include more history, some sociology, some psychology, and even some anthropology and/or philosophy. We feel that Tarlac College, as well as other Philippine schools, must strive actively to prepare students for life in a democracy; the responsibilities of the citizen who votes and elects the leaders are as grave, or even graver, than are those of the leaders he chooses.

In making its choice of subjects to be required -- and at all times, for that matter -- the College should be sure that it is basing its decisions on valid reasoning. For example, it must not get itself trapped by outmoded ideas of automatic transfer. It should become acquainted, in this regard, with the research on transfer and prove to itself whether the study of geometry does teach problem-solving techniques in life situations. Similarly, it should attempt to determine what school experiences best develop the citizenship required of its people by a democracy. When it does this, perhaps it will decide to make some changes not only in its curricular organization but also in its teaching methods and even in the operation of the school.

Students cannot be taught to operate as adult citizens, able to consider issues and make choices, unless they have had opportunity to live this kind of life when they were young. If their classroom experiences are to consist largely of reciting directly to the teacher and, far too often, of repeating to the teacher what was said by the teacher the day before, then there can

be little or no learning of citizenship. Reaction and ideas and, above all, an intelligent skepticism must be nurtured.

Students in the Tarlac classes are models of politeness, and teachers cannot help but be flattered by their deference. But we would hope to see, as time goes on, teachers encouraging students to think for themselves, to gather their own evidence, and to have opportunities for making choices. Students should be faced with more behavioural and social problems to solve and with less rote learning of facts.

We would add, perhaps parenthetically, that just as students must be given laboratory experience in the ways of democracy if they are to become good citizens, so the administration must give teachers the opportunity to function democratically in the school if they are to teach democratically. We would hope that through the TCT Council, meetings regularly and rather frequently, teachers would become involved in the exploration of decisions and policies which affect the College and the general welfare of teachers; and we would hope that students would similarly be encouraged to participate in the development of decisions affecting them.

We would believe for example, that if students are to publish a weekly newspaper they themselves should do the writing and the editing and the censoring. We feel that a school cannot teach democracy if adults impose their standards and their judgments on youth. And we want to point out that sometimes students can learn as much or even more as the result of making a mistake than they can if they are not permitted the opportunity to err.

Elimination of Sectioning

As do most Philippine secondary and vocational colleges, Tarlac College places all its students in "sections" of approximately thirty-five, the entire section then remaining together throughout the day and studying exactly the same program -- except that in the block of time assigned to shop or homemaking activities, the section is broken into sub-groups.

Such a system has the advantage of easy programming and of providing greater certainty of keeping class sizes, at least in the academic areas, more or less constant. It has many overwhelming disadvantages, we think, for example:

1. There is much loss to students in not getting work with - to cooperate and compete with - a spread of fellow classmates rather than being kept with the same small group continuously; certainly we think a change of neighbors throughout the day should be much more exciting than the present situation of staying constantly within the family.
2. We think we can demonstrate, particularly in a school which can have only a limited number of sections, that to line up 35 students of equal ability and interests so that they all should be taking the same courses and so that they all have the ability to progress at the same rate in all of them is a physical impossibility. At the present moment, Tarlac students are sectioned pretty much according to vocational objective, which is perhaps as good a single

device as any, but the fact that 35 boys intend to become technicians is no guarantee that all 35 can progress at the same rate in algebra, in English, in physics, and in auto-shop. It does not take into account the fact that in a Spanish class, some of the students will have had, already, one or two or more years of Spanish while others have had none. Only a very, very skilled teacher is able to cope with a situation such as this and keep all students progressing at their maximum capacity instead of teaching to the level of the least able, or the most able, or even the average -- and at the same time neglecting the others.

3. The sectioning system does another thing which is even more indefensible. It assumes that all subjects have the same value for all students. And on the face of it, this condition is not true.
4. If additional reasons are needed for elimination of the sectioning practice, we would point out that under this kind of organization the shop and home economics experiences all too frequently result in a very high pupil-teacher ratio, for a group of 35 may be divided three or four ways for shop instruction. Of course there are devices for ameliorating this condition somewhat, but the tendency is for sectioning to force a school into the unnecessary cost of offering many small shop classes and thus ballooning costs.

To our way of thinking, the operation by TCT of a program based on limited number of required subjects and a broad selection of electives, one which permits a student to select a schedule of classes tailored to his individual needs, is a real necessity. With this system, the College can offer a broader array of courses and do so at less than its present unit cost.

Reduction of the Student's Day

One cannot help but be aware that the student who must attend classes in seven or eight different subjects each day (and one of which usually runs for three periods) has but little time left for real study. We would rather have him take only half as many subjects and do them well than have him attempt everything and do it only superficially. We do feel that a year of chemistry, for example, taken as one subject in seven cannot begin to equal the course taught in a school where the student can give to it one-third of his attention. If we remember, too, that at TCT - at the present moment at least - the student taking seven subjects is further handicapped by perhaps having to share a textbook with several fellow class-members and by having limited library resources and practically no laboratory material, we begin to get an idea of the impossibility of the situation.

As a matter of fact, if students could have time to work more outside of class, there might even be some possibility of reducing the length of periods from the present 60 minutes to 55 or even to 50 -- although probably this could not be justified until more reference books are available in the library.

If the number of periods per day is reduced, then obviously the number of faculty members required will be less. The resultant saving in the number of teachers, however, may not be exactly relative. With the elimination of sectioning, as proposed earlier, all academic classes will not need to remain at the approximate figure of thirty-five. Some English composition and speaking classes, for example, should be cut in size to perhaps 20 or a maximum of 25 if there is to be effective work, for one cannot learn to write or speak unless he has had opportunity to write and speak, regardless of how well he knows the rules. (And, of course, some classes, may be able to function just as well with 50 as with 35.)

Our plea in suggesting an increase in the ratio between faculty and students is not to save money but rather to release funds for increased salaries, for supplies and equipment, and for library books.

Added Services That Must Be Provided

If teachers are to do more than lecture, then they need to have special services available to them.

First of all, they need an office in which to work and to meet students. (TCT has made a start in this direction this year.) Note that when students go to class less they will have time to meet with teachers on an individual basis more and that accordingly the teacher must be readily available to them.

Further than this, teachers need facilities for the preparation of materials for use in class. At least, they should have available a simple duplicating system whereby they can prepare assignments and problem material for distribution rather than having to waste class time with writing assignments on the chalkboard. In a school where there is a

dearth of textbook and reference books, they need to be able to prepare guides and syllabi -- some of which may even be sold to students for a fraction of the cost of textbooks and some of which may eventually be suitable for publication (an important possibility in view of the need for more textbooks suited to use in Philippine schools).

Particularly do teachers need the assistance of some audio-visual equipment. A projector that works should be available, and the College should start on the purchase or renting of appropriate films. Even though the cost of purchase or rental may be prohibitive at the moment, the College will be able to borrow from commercial firms and other organizations free of charge, or just for the cost of postage, many films which have some suitability. Particularly in science classes, where there is little opportunity for a real laboratory experience, would films be helpful; and likewise films would be invaluable in social science classes for bringing the world into the classroom.

A few tape recorders are a minimum necessity for language classes, particularly those in English where the spoken language becomes corrupted when handed down from a teacher whose native language is not English to a student who also speaks another native tongue. In many cases, the prospective teacher learns from a teacher who himself never quite learned to speak English well, and thus through the school generations the mispronunciations are firmly fixed. If English is to remain the spoken language of the classroom, then a better brand of English should be spoken -- not only by English teachers but by all teachers and students. The use of

tape recorders might assist in this regard; or perhaps, even, a Peace Corps volunteer would be able to assist.

Teachers also should be helped to a better understanding of how they can take advantage of community resources of all types--audio-visual materials, speakers, publications, discarded materials which can be salvaged or used as supplies. They should seek potentials for field trips and opportunities for student work-experience.

Teachers and administrators should take advantage of Section 14 of the founding act, which provides for lending of all sorts of equipment and services by "heads of bureaus and offices of the national, provincial, municipal governments and government corporations and other instrumentalities, upon request of the President of Tarlac College of Technology . . .

The College needs to serve the faculty by helping it expand its doors beyond the school itself.

Teachers will need someone to work with them and coordinate the preparation of teaching materials. Accordingly, we believe that someone should be assigned administrative responsibility for the instructional program, someone who has the ability to be of assistance in this regard.

Students also need special services, particularly as they are given the opportunity to make choices as to the programs they elect. Thus the College has real need for an administrator to head its student personnel services and insure that students are given counsel--but not direction.

NATURE OF THE "COLLEGE"

In making all these suggestions, we should point out, we have gone on the assumption that the College will remain primarily a "College of Technology" and that it will become less of a transfer institution or even a teacher-training institution than it is at present. Of course, the actual function of the institution as it develops will be something which the College and its Board of Trustees will need to continue studying. The final decision may well be tempered by the development of the Tarlac branch of the University of the Philippines, which, if it expands, and if it continues to offer lower division work, will definitely free TCT from the responsibility of offering more than a trade and technical program plus the needed general education courses. If TCT retains its presently stated purpose, it probably will offer a complete transfer program only in homemaking and engineering and, perhaps, in teacher training for industrial arts and homemaking.

Of course, we must admit to a partiality for a comprehensive college, much as in the American junior college tradition, for it gives its enrollees more opportunity for choice and for change of objective. With but limited financial resources and with the relatively small college student body it has now in sight, however, we feel that TCT cannot spread its efforts to the extent of offering transfer programs in a variety of fields. We wonder even if at this time the College is in a position to offer a transfer program in agriculture.

A final decision on the role of the College is important, not only in terms of curriculum and finances, but also inasmuch as it has a definite bearing on the type of students to be enrolled. If TCT is to

remain strictly a vocational school, then it will select students who can be prepared for employment by the curricula developed and such students will not necessarily be the same students as those who can do a high level of academic work. Perhaps, even, unless it can develop more training programs for girls which lead directly to employment, it will need to curtail drastically the enrollment of women students in the college.

So that there will be no misunderstanding about our use of the word "college", perhaps we should pause to explain the terminology we are using in this report.

In the various statements and reports issued by TCT, one finds that "college" may refer to the total institution, to the college program as distinguished from the secondary or high school program, or to "colleges" within the College -- the College of Forestry, the College of Engineering, or the College of Arts and Trades (this latter designation referring to the post-high-school classes now operating at Tarlac).

To simplify matters, in this report we shall capitalize the word when it refers specifically to all of TCT and in distinguishing college classes from those at the high school level shall call them "post high school," this apparently being an acceptable term in Philippine education. We shall not use the word "college" to designate institutional areas within Tarlac College of Technology program in view of the confusion which results and in view of the relative smallness of these entities. Rather we shall refer to them as divisions; and we would suggest to the school that it consider adopting this, or perhaps some better label, in describing its organization.

As one reads the various suggestions included herein, he will become aware of the fact that we have assumed that our chief responsibility is to recommend with regard to the post-high-school program (and we could hardly do otherwise in view of the fact that we have suggested the ultimate elimination of the high school). If the College reaches, eventually, the form we envisage, then the post-high-school program will become in reality the college program. In the meantime, however, we have based our thinking on separating as completely as possible the high school and post-high-school programs and when we talk of divisions or other services (with the exception of those related to business affairs and certain other limited areas) we are thinking that they will be related to post-high-school education alone.

We should mention, however, that most of what we say about special services in the pages that follow can be applied to the high school as well as to the post-high-school program.

At this point, too, we should admit to our lack of concern with clear cut distinctions between the various levels of competence that range from the unskilled to the highly skilled. Our vision of the future of TCT contemplates its offering courses covering the total range from the semi-skilled to the semi-professional, and such courses may range from short-unit courses of a few hours, based on but little previous education, to high-level, well-organized curricula of three or four years. When we speak of "technology" we are thinking, therefore, of a general area rather than of a specific level. And we are not limiting our use of the term to those areas which center around engineering -- as sometimes is done--; for we would hope that this school of technology will broaden its concern to involve all occupations below or supporting the professions.

STAFFING THE COLLEGE

In view of the probable decrease in size of the secondary program, and probably even its final elimination, particularly at Tarlac, we suggest that the College study the desirability of separating the administrative responsibility for the high school from that for the post-high-school program. (Such an arrangement is consistent with present plans to separate the buildings for the two academic levels so long as they both exist.) Rather than assigning a person responsibility for certain educational services in both areas, it may find that a more logical arrangement would be to have those in charge of secondary education, -- "principals" perhaps, -- report directly to the president and to have whatever administrative assistants are deemed necessary at the high school level report directly to the principal. Perhaps the time will come when one principal can serve as the head of the secondary schools at Tarlac and Camiling, dividing his time between both schools.

In view of present estimates of the number of post-high-school students expected at Camiling in the near future, we wonder if the classes for them should be considered as an independent institution, and we suspect that consideration should be given to the concept of offering these classes as a part of the total post-high-school program, offered at a second site (and as time goes on TCT may have occasion to open up other locations, in commercial establishments and elsewhere, as additional sites or campuses). Such a concept offers difficulty in terms of mutual sharing of land areas and facilities at Camiling, but it does have the advantage of unifying the post-high-school program throughout. Of course, an alternative is to retain administrative responsibility for both the high school and post-high-school

programs at Camiling in a single individual thinking of the over-all post-high-school staff as service personnel for the Camiling program. We prefer the former alternative but certainly we should not attempt to make the decision.

As things stand now, there will have to be some duplication in the general education offerings at Camiling and at Tarlac, although each location will offer distinct types of occupational courses. Perhaps the duplications can be eliminated some day in the future, and with little net increase in cost, when the College can bus students daily from Camiling to Tarlac for general education and even some students from Tarlac to Camiling for agriculture.

With these considerations in mind, we have some suggestions to make with regard to a possible administrative staffing pattern, one somewhat different from the one presented in the Annual Report since they are planned on a somewhat smaller scale. We have attempted to be not too specific, inasmuch as we propose this as just one of several types of organization possible. (To keep this general, we have refrained even from presenting them in chart form.) We do think, however, that they show level of responsibility; on the other hand, we recognize that administrative relationships oftentimes must be based as much on personalities and competencies of available personnel as on logic. Our suggestions follow:

- I. The Board of Trustees; responsible for the policy making function.
- II. The president; responsible for over-all supervision and administration, and serving as secretary to the Board of Trustees.

III. At the vice-president level --

- A. Principals of the secondary divisions; one or two, as required, and responsible for the instructional and personnel programs in each high school. (Under the principals will be such vice-principals and/or other personnel as needed in the local situations, but some one person must be assigned specific responsibility for the student personnel program.)
- B. A vice-president in charge of the post-high-school program responsible for the instructional, personnel, and administrative services (with one dean in charge of each area) for the total program, day and evening.

IV. At the dean level --

- A. Dean of Administrative Services; responsible for all management services (to the secondary program, as long as it continues, as well as to the post-high-school.)
 - 1. General financial matters and budget.
 - 2. Ordering, accounting for, distributing, and servicing supplies and equipment.
 - 3. Collection and disbursement of funds.
 - 4. Custodial and maintenance services in buildings and all other physical properties.
 - 5. New construction.
 - 6. Student housing.
 - 7. The non-teaching staff.
 - 8. Duplication services.

B. Dean of Student Personnel Services; responsible for operation of the program and for personnel assigned to it.

1. Counseling and guidance.
2. Testing and research, including follow-up studies.
3. Placement (for high school divisions also).
4. Admission and records (the registrar).
5. Health services -- including doctors and nurses (for high school divisions also).
6. Student activities.
7. Liaison with high schools and colleges.
8. Financial aid programs for students.

C. Dean of Instructional services; responsible for all phases of the instructional program and for personnel assigned to it.

1. General education -- (an assistant dean in charge).
2. Vocational education (an assistant dean in charge).
3. Teacher education (an assistant dean in charge).
4. The Instructional Council (a faculty committee concerned with curriculum planning and implementation).
5. The library and audio-visual aids (for high school divisions also).
6. Curriculum planning and supervision.
7. Special services for the teaching staff.

A few generalized comments might be made about some of the positions listed above:

- I. The Board of Trustees should content itself with policy making and should stay out of actual administration. It should protect the College and its officers from outside pressures, particularly those which would seek to impose personnel on the College, and should content itself with approving or rejecting the personnel recommendations of its chief administrative officer without ever attempting to dictate appointments to him. It should take responsibility for guaranteeing that the College is adequately financed and housed.
- II. The President will have responsibility for setting a democratic tone in the school in all relations between administrators, teachers, and/or students. This means that he will lean heavily on his Executive Council and the TCT Council. Since he will have prime responsibility for relations with the community, he may well want to establish a College advisory board, and quite likely he may need an assistant to prepare college publications and materials to be distributed to the public. The President will, of course, need adequate secretarial assistance; and, if he does serve as secretary of the Board of Trustees -- which is a common American custom in school organization -- he will need some specialized help in this regard.

- III. We feel that the eventual organization will place a vice-president in charge of the post-high-school program, and for the moment at least we see two other persons at the vice-president level -- one in charge of the high school at Tarlac and one in charge of the school at Camiling. There are good arguments for various other ways of dividing the work, and the Camiling vice-president might well remain in charge of the total program, at that location as of now, or he might be in charge only of the high school program there, with the small number of post-high-students being attached to Tarlac. Or, of course, if the college program at Camiling grows quite rapidly, he might be in charge of it, and the reduced high school program could then be attached administratively to the Tarlac high school division. Those in these positions must be given adequate secretarial assistance and be assigned authority consonant with their responsibilities.
- IV. The three deans of the post-high-school program are given important responsibilities aided by specialized service personnel or assistant deans, they will work with teachers and counselors. Again, these officers need clerical service and adequate locations in which to work.

In proposing one type of administrative organization towards which we think TCT might aim, we have assumed a large growth in the post-high-school student body and a gradual reduction in high school enrollments. We are aware, of course, that for the present more staff is needed for the high schools than we have detailed and that much less staff is needed for the post-high-school classes. We are aware, too, that present

necessity may well make a complete separation of responsibilities between the two levels impossible.

We might discuss some of these matters further.

In the first place, we contemplate that the Dean of Administrative Services probably will have responsibilities for and in behalf of the secondary program so long as it exists. The same thing might apply in the case of the Instructional or the Student Personnel Services, although we feel that in these areas, there is much advantage in a definite separation (except, perhaps, for library and similar services). (As a matter of fact, however, an alternate plan of organization which TCT may want to consider is to appoint the three Deans -- of Administration, Student Personnel Services, and Instruction -- and make them responsible to the high school as well as to the post-high-school Vice Presidents, thus using the one service staff to help both levels.)

What the high school needs, actually, is at least one Vice-Principal. A common pattern in high schools of 1000 or more students is to have two Vice-Principals, assigned either: (a) as Dean of boys and Dean of girls, or (b) as Dean of Instruction and Dean of Students. One or both, according to the assignment pattern followed, will be concerned with the relationships of students to the school and to each other. This will include serving as advisers to the student government and student activities and at the same time coordinating the guidance program of the school. In this latter capacity, such personnel will coordinate the work of teacher-counselors, take responsibility for disseminating pertinent materials, assist with in-service training, and aid in professional matters. In such areas as the health services and placement, however,

undoubtedly a single organization can well serve both the high school and post-high-school classes.

Acknowledgement also should be made of the fact that all the administrative positions suggested for the post-high-school program cannot and perhaps should not be created until this program has grown in size. But we have attempted to show the relationship between functions and so have described an administrative organization which would serve a college of perhaps 1500 or more. In the meantime, we would expect that some positions should be left vacant and their functions assumed by another official. For example, the President himself may retain the coordinating responsibilities of the Vice-President in charge of post-high-school classes and work directly with the three Deans; or, on the other hand, he might name the Vice-President and expect him to serve at the same time as Dean of Administrative Services, for example. Similarly, only one or two Assistant Deans of Instruction might be appointed and the separate duties reapportioned accordingly. Perhaps, for example, the administrative responsibility for teacher education could be assigned temporarily to either of the other two Assistant Deans.

We should note that this organization is based on the concept of a unified post-high-school. This we think is more reasonable, more practical, and more economical than the original proposal developed by the TCT to appoint heads of separate "colleges", such as the College of Engineering, the College of Forestry, and so on. In eliminating the need for elaborate "college" or departmental set-ups, we avoid the problem of narrowness and vested interest which sometimes arises when strong subject-matter departments exist. Under the proposed organizational

plan, the development of any vocational program will be the concern of all vocational teachers and so will be coordinated with the school-wide offerings. The academic areas will be more inclined to approach their considerations from an inter-disciplinary point of view than if separated into "colleges." An appropriate first study for them, incidentally, might well be a broad study of the College goals and policies in general education and how these purposes can be implemented -- based on an analysis of contributions which Science, English, Social Science, and all the other curricular areas can make toward the achievement of these goals.

And now for a more detailed look at the three areas of responsibility assigned to the Deans, for in many respects the Deans are the key persons.

ADMINISTRATIVE SERVICES

The Dean of Administrative Services would be responsible for all services now listed on the TCT administrative chart as "administrative" and "service". The college financial personnel should be under his jurisdiction, as well as purchasing, custodial services, and all other non-professional personnel. We feel it important that this person be of faculty rank and be qualified as a teacher, for in this way there can be no question but that professional educators are in charge of the non-academic functions of the institution as well as the instructional program.

Although we would assign responsibility for all non-teaching personnel to the Office of the Dean of Administrative Services, we can see where the actual keeping of records with regard to educational and non-educational personnel and even some responsibility for selection, assignment, and training of non-educational persons could be carried by the individual who works directly with the President either as Secretary of the Board of Trustees, or as an Assistant if the President himself is to act as Secretary.

STUDENT PERSONNEL SERVICES

Because of the broad responsibilities which an office set up to serve students must have, we are suggesting that the designation "Student Personnel Services" be used instead of "Student Affairs", as at present. The use of the word "Services" is important in that it describes functionally the duties of the office.

Except in the case of medical and dental service and placement, we are suggesting that TCT give thought to separating Student Personnel Services from the high school and the post-high-school programs -- although, of course, we realize that all things cannot be done at once. This distinction, however, has certain psychological implications which we think important, for rules of student conduct and even regulations governing attendance will need to differ with the age group and with the instructional program. Further, day-to-day breaches of discipline will not be matters of concern at the post-high-school level, particularly if there is a physical separation of the two programs, whereas they can often occupy much of the working day of a secondary school Vice-Principal.

As pointed out earlier, the actual creation of the various Dean's positions will depend upon the growth and development of TCT, and certainly a consolidation of functions well may be necessary for some time. We feel that there would be great advantage, however, if the functions of Student Personnel Services can be kept parallel with those of Instructional Services rather than being subordinated. (Because of the small post-high-school enrollment currently at the Camiling Branch, there is little need for the assignment of a Dean of Student Personnel Services there at present; we like the idea of having a teacher freed part-time to work in this area under the general supervision of the Dean on the other campus.) One of the main functions

of a community college is to provide experiences outside the classroom which contribute to the education and growth of students, to students' finding themselves. Such growth is accomplished, in part, through the provision of adequate personnel services in the areas of counseling and student activities. For this reason, the person in charge of student personnel services has equal responsibility with the one in charge of classroom instruction in the educative process and should be, administratively, so regarded.

In implementing its organizational structure, TCT should make use of the excellent resources available to it from the University of the Philippines and other institutions of collegiate level. In the area of testing, for example, the Guidance Center at U.P., Manila, could prove a valuable source of information not only on how and where published tests can be obtained but also in the training of those who will be responsible for test administration and interpretation.

Counseling and Guidance

Although we believe the ideal arrangement for a college is to have a staff of trained, full-time counselors, we realize that because of limited funds this may not be possible at TCT for some time to come. We agree, then, that the best arrangement is to assign instructors to counseling duties on a part-time basis. This is frequently done in California junior colleges and is a satisfactory arrangement if discrimination is used in the selection of instructors for this duty and if such assignment is not used merely to fill out a teaching load. Those instructors who have had some training in the counseling area and express an interest in this kind of work should be the first selected. If, as

recommended elsewhere in this report, the sectioning system is eliminated and if the number of periods per day in which a college student is enrolled is reduced, there should be teachers available to fill this much needed assignment.

The Dean of Student Personnel Services should be responsible for establishing and maintaining an on-going in-service training program for these part-time counselors; and the counselors themselves should be encouraged to further their training through TCT's Incentive Development Plan.

The counseling and guidance function becomes increasingly important when and if the rigid curricula are eliminated and students are given an opportunity to elect courses and major fields. Educational and vocational counseling then become major functions, and each student should be encouraged to make use of such services. Certainly before enrolling at TCT for the first time, the student should be given an opportunity to have a lengthy interview with a counselor who will not only assist him to understand himself and his potential, through interpretation of transcripts, test scores, previous work history, expressed interests, and the like but will also make clear the various programs that are available to him at TCT. The counselor will help the student learn which programs appear to be best suited to him in view of his potentials, but he will always remember that the final selection of a goal, a program of study, or a schedule of classes is the student's and that the student learns through trial and error, failure often being the best teacher -- provided there is an "open door", a chance to start again.

Because of the big changes which may take place in the TCT program, we would guess that more counselors will be needed at the outset than might otherwise be the case in a college of similar size -- for the need to make choices will be a new experience to many of the students. For the first year, perhaps therefore, the ratio of counselors might well be 1 full-time equivalent counselor to 150 students instead of 1 to 300, as might be the case in later years. Adequate individual counseling cubicles must be available if counselors are to work individually with students.

Testing

This function is closely related to that of counseling in that it serves to assist the counselor and the student in their weighing of the evidence before choices are made. Until TCT grows much larger than it is at present, the Dean of Student Personnel Services can himself be directly responsible for this activity. His primary duties in this area will be test selection and administration, both individual and group, and the training of counselors in test interpretation.

Tests used for the selection of students to be admitted to the fall term should be administered to potential entrants prior to the close of school the preceding spring. This can be done either at the College on a Saturday or in the various schools of the district from which TCT students come. If this is done, test results will be available for counselor use at TCT in interviewing students during the summer. In this way, students who pass the tests will have more individual assistance with their planning, and those who do not qualify for admission will be notified well in advance of the opening of the fall term and thereby be afforded an opportunity to make other plans. This will eliminate, also, the

present wasteful practice of interviewing students before they are tested, with the result that many hours of counselor and student time are consumed in the planning of programs for students who later are not granted admission. Under this plan, students would be notified of whether or not they have passed the test shortly after they have taken it in the spring. Appointments of perhaps half an hour in duration can then be set up for them to get assistance in planning a program prior to the opening of classes in the fall.

We feel strongly that the purposes and nature of the tests as now used should be reviewed thoroughly. As things stand, the student's academic ability is tested to determine his admission to a vocational curriculum in which the emphasis is on practical work more than on academic studies. Obviously this is an inconsistency and tends to keep out many of those students the college is primarily designed to serve.

As long as TCT follows a policy of selective admissions, great care must be taken, and procedures must be constantly evaluated and modified when necessary, to insure that the criteria used for such selection are valid. Perhaps tests other than those of general achievement are needed-- as well as evaluation of high school transcripts, interviews, and recommendations. Perhaps, too, the decision on individual admissions should be in the hands of an administration-faculty committee which functions after the testing program has been completed in the spring.

Admission and Records

The present TCT administrative structure calls for the registrar to be in a top administrative position. Since the one filling this position will be primarily an implementing officer in charge of records, however,

we would hope that the College will consider carefully his assignment as an aide working under the Dean of Student Personnel Services.

We think that the College should consider maintaining individual folders on each student, these folders to contain not only the permanent scholastic record, but other papers which will enable the counselor to get as complete a picture as possible. Records of counseling interviews, health records, transcripts, copies of correspondence pertaining to the student, records of participation in student activities, records of honors, scholarships, and awards -- these are illustrations of what should be included.

In most cases, all records should be the original documents, with as little copying and recopying as possible. The basic data on most records should be recorded by the student himself at the time of registration. These folders should be available to counselors during registration and at all other times.

An important function of the registrar is to furnish transcripts of records, and still another is to evaluate a student's record to ascertain whether or not he has met requirements for graduation or for a degree. As curricula at TCT become more flexible, with students permitted to elect courses, this latter function takes on increased importance.

Placement

There is a dire need for TCT to initiate a placement service which will be responsible not only for the placement of students in jobs but which also will maintain constant liaison with the major employers of the community to find out what job opportunities exist and how TCT can train for them. Another function of this activity would be the conduct of

follow-ups -- to find out how graduates or those who have been placed in jobs are performing. Certainly, assisting students in finding part-time employment should be a major responsibility of this office.

Such an activity not only aids the students, but it keeps the community aware of the College and its work.

Health Services.

In providing medical and dental treatment for students and staff, and even some times for their families, TCT is rendering a much broader service than that offered by most American junior colleges. If such services are not available otherwise, and if the College can continue to finance them, this is a remarkable achievement. Even though emphasis continues to be placed on treatment, however, we want to point out that health counseling is an important function of the health services. Students and counselors must feel free to consult the doctor, nurse, or dentist on health problems -- and not just for first-aid or similar treatment. Counselors and doctor should work particularly closely together since so many health problems are reflected in school progress. The P.H.N. should have sufficient time to develop and secure materials, through her contacts with medical and other groups interested in disease, which can be used by counselors and teachers.

The college physician should be held responsible for supervision of all sanitary facilities, and he should have the authority to see that they are properly maintained and serviced.

Student Activities

Student activities, like classroom instruction, should be a laboratory for the practice of democratic techniques, and this basic concept should be kept in mind whenever supervision is provided. There should certainly be a minimum of faculty control, and decisions should be those of the students. The adoption of a code covering the exercise of free speech, free expression, and free assembly should be considered.

Research

Research studies should be made in at least two areas at the outset:

(a) In the characteristics of students -- what sort of students come to TCT; where do they come from; what are their backgrounds; where are they bound; and so on. (b) In the area of follow-up -- what happens to students who drop out; where do graduates go; how many transfer to a four-year institution, and what grade of work do they do there.

Financial Aids

Ideally, a financial aids program should be so broad in scope that no student who otherwise qualifies for attendance at TCT will be barred from such attendance because he is unable to meet the costs. Such an ideal cannot be attained at the moment, of course, but perhaps there are a couple of areas which we might suggest in which progress might be made almost immediately if the Office of Student Personnel Services accepts the challenge.

1. A small-loan fund might be built gradually from contributions of friends of the College, from other individuals, from memorial tributes, from industries and service clubs -- one which will be

available to students so that they can borrow from it without interest small sums of money to cover the cost of books and supplies. These loans should be limited in size, and repayment could be scheduled within a reasonable time, perhaps on an installment basis. The amount of red-tape involved in securing them should be kept to a minimum.

2. Industrial concerns, particularly those which employ TCT graduates in numbers, should be solicited to establish scholarships for entering students who show promise in one of the technical curricula. The amount should be enough to defray the cost of instruction for one year.

Liaison with High Schools and Colleges

Not only should the Dean of Student Personnel Services be responsible for getting information about TCT to the various schools from which it draws its students, but also he should be responsible for maintaining constant and effective liaison with the four-year institutions to which TCT students transfer. Personal visits to schools and to classes, meetings with high school counselors, participation in P.T.A. meetings, arranging visits of high school students to TCT -- these are among the methods which can be used to carry on an effective liaison program with the high schools. In his relations with the colleges and universities, the Dean of Student Personnel Services will need to collect information about schools and their requirements, visit institutions and their officials, hold interviews with former TCT students, and use other devices to insure that efficient articulation is maintained so that students can transfer with a minimum loss of credit and of adjustment problems.

INSTRUCTIONAL SERVICES

As is evident from the early pages of this report, we feel that the greatest need at TCT is for curricular reform and that in the accomplishment of this the college will need boldness, imagination, healthy skepticism, willingness to modify and even discard the old, and constant evaluation of present and future curricular offerings in terms always of their value to the particular students enrolled and to the community. Not only devotion but also judgment on the part of the faculty will be required, and always must be asked the questions: Why do we teach this? Does it contribute to our objectives? How can we improve?

Leadership must be provided the faculty as it seeks to plan its curricular program and as it develops course materials. In the discussion of staffing needs, we have suggested that administrative personnel are needed to work with teachers and to help teachers pool their experience and ideas and then get what is produced into usable form. But not only is there a need for specialized personnel -- not to draw up courses but to work with teachers as they themselves work on courses -- but also certain material things are needed. There must be places to work, typewriters, and facilities for duplicating materials.

Of course, the College needs all sorts of equipment and supplies -- in the laboratories, in the shops, in the offices, and elsewhere -- but perhaps first of all it needs to provide those involved in curriculum work, and also the teachers themselves, with facilities for producing outlines, syllabi, guides, assignment sheets, and other materials. The production of instructional materials is especially important in a school which has

such a shortage of text and library books. (At least some of this sort of material should be produced by teachers while working under the Incentive Development Plan.)

As teachers develop syllabi for use by their students -- and if mimeographed these can usually be sold for only fraction of the cost of a textbook -- they can begin to compensate for the lack of books. At the same time they can make a start towards the development of materials which are planned specifically for use in Philippine schools, and there is now far too little of this sort of thing available. Even without typewriters and mimeograph machines, we should mention, teachers could profit greatly from the availability of a simple gelatin-stencil hand duplicator. Also badly needed by teachers are such items of audio-visual equipment as projectors, films, and tape recorders. Again, the present of such equipment will help compensate a little for the almost complete absence of laboratory equipment.

Curriculum Planning

We have talked already about the need for the replacement of sectioning with a program of required and elective subjects, with emphasis on the latter. And we have discussed the fact that the number of periods of classwork in the school day and the number of different subjects studied at one time make impossible the depth and kind of learning that we think most important in a college. As we go into more detail about curriculum planning, we want to emphasize that our judgment and experience indicate that all but the most outstanding college students should be limited to 16 hours of credit work per semester and to a maximum of 20 hours per week, if most subjects are in the academic program, or 25 hours if a large part of the program requires shop or laboratory work.

We would much prefer the college program extended over three or even four years than try to have so many subjects crowded into each day and then, of necessity, treated only superficially by teachers and students. In the planning of the three- or four-year curriculum (and here is the place where the best thinking of teachers, and perhaps community, must guide and where there must be willingness to experiment) and in the review of course content to insure that it meets student needs, we hope the approach will be what we would call one of general education.

Breadth of understanding rather than facts or theory, we feel, is the need in most of the related courses in a technical college or even in one which seeks to teach teachers. For example, a course in political science -- and certainly there must be room for this in the curriculum, at least as an elective -- might find its contents in some of the current political and economic problems reported daily in the newspapers, rather than confining itself to governmental theory. Courses must be built around problems, and the problem-solving approach must be used, for TCT should be interested in understandings rather than in the accumulation of facts. An increase in the utilization of community resources will result from this type of instructional planning, and the advantages of participation in community activities, including work-experience, open up new vistas of usefulness to TCT -- to say nothing of the support they draw to the College.

We would hope that in curriculum planning, provision will be made for more individualization of instruction so that the work will be of value to each student. And, somewhat related to this, is our feeling that one of the greatest avenues of service which TCT has is a wide expansion of

its student body to include part-time students and older persons from the community who want to return to education, either in connection with their preparation for a job or to improve their understandings. We would hope that the College would expand its evening program greatly and that it would encourage adults to enroll in its day classes. This would have the added advantage of forcing teachers to do the constant evaluation and reorganization that we are recommending so strongly, for adults are not as willing sometimes as younger people to study that which is not important to them.

We are particularly interested in the young adults who have dropped out of school at an earlier age and who have little future except to compete as laborers unless they secure more education. When more than 90 per cent of the population gets no farther than the elementary grades and only 2 per cent ever completes high school, and when more than half of those who start college drop out within a year, the need for adult education is tremendous. If Tarlac College of Technology could salvage these drop-outs, it could make a most important contribution to Tarlac and all of north-central Luzon.

We would expect that as the College goes in this direction it will need to offer numerous short-unit courses -- perhaps courses for a few weeks or days, perhaps even courses of only a few hours in length. It should be able to teach such courses on the campus and anywhere else in its district where it can serve. There well may come a time when TCT -- particularly the campus at Camiling but also the technical branch at Tarlac -- will find these courses for adults the most directly rewarding part of its educational program.

One of the most impressive things that TCT is doing at the moment is conducting an evening program. We hope that this can be expanded and that eventually it will be integrated with the day program so that the College will be offering a wide variety of classes available either day or night. We would look forward to the time, too, when some full-time teachers might work half a day and during the evening as their regular assignments -- this making it possible, incidentally for the school to absorb any teachers who might otherwise be surplus as a result of the phasing out of the high school or because of other changes which may come.

The General Education Courses

There may come a day as TCT expands into a three- or four-year institution, and when its financial structure makes possible the expansion of its function, when it can serve the whole adult and young adult population as does the American junior or community college. As we have pointed out already, we see big advantage in the comprehensive college. For the moment, however, we feel that TCT's greatest contribution is going to be in the vocational field. Thus, the College need not plan its general education courses so that they will form a major pattern. It does need to offer a wide selection of courses of this type in a variety of fields so that vocational students can add to the breadth of their education. Of course, the required vocational courses, the depth requirements, will constitute a major part of the technical student's program, but he must have an opportunity, to elect subjects from the fields of history, sociology, psychology, and anthropology, for example. And he should be able to choose other general education offerings in literature and language, in science, and in the fine arts. The development of life science courses available to him is an urgent need.

In other words, curricular programs must be developed to provide students the opportunity to choose from fields which will make them broader individuals, better citizens, and wiser adults.

We would hope that although adults will come to the College primarily for vocational training they too would be permitted to elect general education courses. Their added enrollment will make more such offerings possible, and their participation in the classes themselves will improve the instructional program.

The Vocational Program

The College should remember that the primary goal of its vocational programs is to train for employment and not for transfer to a four-year institution -- or, even, to prepare for graduation from TCT itself. In fact, in those occupational areas where less than the maximum number of years offered by TCT are required, the College will be doing its best work if it gets trained workers into employment at the earliest moment when they are sufficiently skilled. This is not to say, of course, that general education courses should be omitted from vocational curricula. We want to emphasize, however, that progress towards a four-year academic degree, something on which society seems to be placing a premium, is really not a function of TCT at present.

We would urge that in most cases technical students should be given an opportunity to get the needed related instruction in other than the typical lower division university courses. We would suggest the development, through committees of vocational teachers and of those in other instructional areas, of such courses as Mathematics for the Technician, Physics for Technicians, Technical Report Writing, and so on. And we

would recommend the consideration, at least of approaching vocational education through the "upside-down" approach popularized by California Polytechnic College, in which the student studies theory only after he has found the need for it in his practical courses -- instead of learning it as a pre-requisite to the practical.

Vocational programs must be geared to the needs of business and industry in the area that the College primarily serves. For this reason, proposed programs should be drawn up in consultation with representatives from the field.

We have discussed with the College the need for its developing a program in the field of business education, perhaps at the start limiting itself to the training of clerk-typists. Eventually it well may find the need to expand into specialized secretarial training, business machines, and even, perhaps, data processing. Here, however, is an excellent example of a curricular area where the community must make the decision. What sort of office employees are needed? Are there already too many bookkeepers and accountants available so that training in this field should be avoided? What are the inducements for girls to go into office work? How many trained clerk-typists, and how many secretaries can be absorbed each year?

We have discussed, also, the possibility of training law enforcement employees. Here again the surrounding police departments and firms which employ security guards should be consulted and should participate in the development of a program if one seems warranted. The same thing applies to programs which may develop in engineering technology, in certain fields related to nursing and medicine, in building, repair and maintenance, and in many other areas already being considered by the college.

Then, of course, there is agriculture -- the program in which the Camiling Campus is particularly involved. Here, perhaps even closer than with any other curriculum, the major values of the program cannot be attained without close relations with the community in planning curricula, in the organization of class work, in placement, and in the wide utilization of services available through the college.

Some of the college catalogues which we have brought to Tarlac will be helpful in the planning of vocational programs, and certainly other similar printed materials are available from dozens of California junior colleges; but these should be used only as guides, for employment and social conditions are so different in the Philippines from those in the United States that local students deserve to have courses tailor-made for them.

The real need for these and other courses can be determined only through a survey of local employment needs and trends. In the consideration and development of vocational courses, TCT will need to establish rather formally specific advisory committees, containing representatives from both management and labor. The organization of such committees and the work with them becomes a major responsibility of the instructional person responsible for vocational education. These committees should be used to plan not only the two- and three- and four-year curricula but also the lectures and demonstrations and short courses -- for example on ventilation equipment for electricians, on the use of fertilizers or on tractor maintenance for farmers, on power steering for auto mechanics, and so on. And these courses should be a real concern of advisory groups whether the classes are to carry college credit or not or whether, even, they deal with topics at the college level.

As is customary in many Philippine schools, TCT provides for a limited production effort by some of its classes, either in connection with college building and equipment projects or for commercial sale. Production on the school farm at Camiling provides a major source of income. So long as educational objectives are kept foremost, such a practice appears to offer many advantages for on-the-job training, and it also gives students access to supplies and activities which otherwise could not be furnished. Just as long as such work is educational in nature, and not merely repetitive unskilled labor, and so long as it is developed with the help of advisory committees, we would think that there are real advantages in continuing and expanding the practice.

We would like to call attention to the need for introducing principles of business management into nearly all vocational classes and curricula. One thing which the Filipino small business man lacks, we are told, is knowledge of rudimentary cost accounting, of keeping an inventory, of record keeping. Not only should the major curricula give attention to such matters as these, but also the College would be well advised to offer short unit courses in such subjects for those adults already engaged in business.

Transfer Programs

Transfer programs are those which parallel the first two years of work in a university; and students completing them satisfactorily should be eligible to transfer to a university or four-year institution with advanced standing and with no loss of credit. Obviously, TCT will find it impossible to duplicate all the lower division offerings

in the many four-year institutions in the Philippines, and because the principal task assigned to it when it was founded is to prepare technicians, we suggest that it limit its transfer programs to those in the technical field. Even in technical areas, we would point out, preparation for transfer should be only of secondary importance, for we feel that the College at this stage in its development can do the best job by focusing on its primary objective.

If we thus limit transfer programs, we need provide courses only in the areas of engineering and home economics and perhaps in agriculture. We would further limit the need for courses in these areas by making it possible for students to qualify for the two or three colleges to which most of them go (although the total number is small), namely: The University of the Philippines, the Philippine College of Arts and Trades, and the Central Luzon State University.

The catalogues and other publications issued by these colleges will serve as guides in the planning of transfer curricula in these areas and in the development of individual courses which should be offered so that students can qualify in the selected curricula. Counselors, of course, must become thoroughly aware of transfer requirements and be in a position to explain them to students. They must also be qualified to evaluate the student's chance of success in transfer work as revealed by the grades, tests, interests, and other information available about each student.

If TCT is to provide for transfer in these curricular areas, then it will have to make available courses in the following general education areas:

1. **English:**
Communication Skills -- 6 units (plus remedial work if needed)
Literature -- 6 units.
2. **Speech: Fundamentals -- 3 units**
3. **Foreign Language: Spanish I, II, III, IV -- 12 units**
(those having had Spanish in high school can earn credit
by examination)
4. **Humanities:**
Introduction -- 3 units
Western Thought -- 3 units
5. **Social Sciences:**
Philippine History and Institutions -- 3 units
Asian Civilization -- 3 units
General Psychology -- 3 units
6. **Natural Science: Foundations of Biological Science -- 3 units**
7. **Mathematics (plus remedial work where necessary):**
Mathematics for General Education -- 3 units
College Algebra -- 3 units
8. **Physical Education: 2 units per semester -- a total of 8 units**
9. **ROTC (for men) or Euthenics (for women): 4 units**

Depth requirements in the specific majors in which transfer from TCT may be possible are already well known to the college staff. Certain requirements for engineering majors might be listed here, however, as an example of what will be expected:

1. **Mathematics:**
Combined course in Algebra and Trigonometry -- 5 units
Elementary Analysis -- 15 units (5 per semester for three semesters)

2. Chemistry: General and Inorganic -- 7 units (taken in two semesters)

3. Physics:

Mechanics and Sound -- 4 units

Heat and Electricity -- 4 units

Optics and Atomics -- 4 units

Home economics majors transferring are expected to have had five 3-unit courses entitled respectively: Principles of Food Preparation, Clothing, Child Care and Guidance, Basic Nutrition, and Art in Daily Living.

Teacher Education Curricula

Although the teacher training program is separated at TCT from other curricula, it is essentially just another transfer program, and except for certain specialized classes it will consist largely of the program of subjects developed for the other transfer curricula. Specific requirements, of course, will be those set forth in the curricula of four-year institutions to which most Tarlac students will go.

In some cases, the first year of the agricultural transfer program and that of teacher training are identical, and in other cases the first two years of the program for engineering transfers are identical with the requirement for teacher education majors. Perhaps the College will want, therefore, to develop many of its first-year technology courses to serve a dual purpose so that numerous small classes will not be required. For example, the general physics course required of teacher education transfers to UP will have about the same content as the proposed course in Physics for Technicians.

TCT has committed itself already to a four-year training program for elementary school teachers of industrial arts and homemaking. It must watch this development to be sure that its services are needed in this field and also that it can do a good job sufficiently economically that it will not handicap the development of its first responsibility to technical education. Other institutions can and do offer four-year courses in teacher education. Perhaps TCT also has a future in this area, but it should keep alert to the need for constant evaluation and the weighing of alternatives.

The High School Curriculum

We need to say little in regard to the high school curriculum since we feel that eventually it will be eliminated to the advantage of the post-high-school program, and also because there seems to be some little confusion about what effect the enabling act which established the Tarlac College of Technology has on the high school program, which it does not mention at all. We cannot conclude this section on the Instructional Services, however, without repeating what we have already indicated and what many past surveyors of Philippine education have said before us, that: the high school curriculum is too crowded; the school day is too long, there is a dearth of books, supplies, and equipment; and too much emphasis is placed on the recitation as a classroom teaching method. So long, as TCT does operate a high school curriculum we would hope that it would be able to make progress in remedying this situation.

ROTC

In a technical college, ROTC related to Ordnance or Air Corps where engineering technicians are used, would seem to capitalize better on the specialized skills of students than does the traditional infantry training. The College might explore whether national military policy would permit a shifting of emphasis at TCT.

SOME MISCELLANEOUS CONSIDERATIONS

We would like to make a few miscellaneous comments before we close this report, as follows:

1. Through spring testing and program planning and through summer registration, the College should bend every effort to get classes started promptly on the first day of school when the fall term begins. Just as much as possible, buildings, supplies, and equipment should have been ready for occupancy and use at the beginning of classes.
2. The College's proposed program for barrio development should be pushed just as soon as funds can be secured. Not only should all sorts of specialized vocational-type programs be taken to the barrios (and barrio people brought to the College for them), but also educational programs to help develop leadership and to enlarge understanding should be established.
3. The College should take steps to dramatize better for the community the courses it is offering, the achievements of its students and former students, the services it renders. Particularly should it seek to do this in connection with its agricultural and technical programs. In focusing attention on its work, too, it well may be serving an educational function for the community -- as in the rice festival now being planned by the Camiling campus.
4. TCT should seek actively to profit from the professional leadership, prestige, and assistance of the University of

- a. The development throughout the Philippines of an appreciation for technical education and an awareness of the fact that the colleges of technology are really the people's colleges and as such are respected members of higher education.
- b. Assistance in the development of tests suited to the purposes for which they are needed and validated in terms of Filipino culture and education.
- c. Preparation of films, film strips, and tapes which are suitable for use in Philippine classes -- particularly in the sciences, the social sciences, and the technical classes. The development of a lending or even a rental library of this type by the University would help compensate for the shortage of text and library materials in most schools and colleges.
- d. Preparation of texts and workbook materials which can be made available in inexpensive editions -- printed or duplicated -- and which have been designed specifically for use in the rural areas of the Philippines.

And, of course, it will want to continue using UP assistance in the in-service upgrading of its teaching staff.

5. Sanitary facilities are badly needed and should be provided at once.
6. Better maintenance of buildings and equipment should be provided for, either through paid personnel or, partly at least, through student work-experience programs.

7. The large building which lies incomplete is badly needed and should be finished just as soon as possible.
8. Typewriter are badly needed, not only for educational purposes but also for the use of teachers and administrators. Even in the main office, the number of typewriters is so limited -- and many of the available machines are so outdated -- that the clerical staff is severely handicapped. Quite possibly an office staff of the present size could, with a few more typewriters available, begin to render some of the service to administrative and teaching personnel which appears to be much more basic to the purposes of a college than the business functions, important as they are.
9. Teacher salaries appear to us to be far too low, not only in comparison to teachers' salaries in other parts of the world but also in comparison to teacher salaries in other Philippine colleges; and they are lower in comparison, also, to the civil service salaries of these school personnel who are not professional educators. The point system developed at TCT for fixing teacher salaries is an admirable piece of work, for it places salary position and promotion from one academic rank to another on an objective basis and eliminates any chance for politics to become involved. The progression from one step to the next seems to us to be very slow, however, and so the top salary ranks have little meaning for most teachers.

10. We feel that if the College is to profit fully from the special talents and the extra efforts required from those it places in administrative positions, it must provide some salary inducement over and above that given the individual by his placement according to academic rank. We would recommend that some sort of a ratio system be added to the salary schedule so that administrators can have a factor applied to the salary to which their academic rank entitles them. For example, a Vice-President might be entitled to, say, 2.0 times; and a Dean might get 1.7, as an example. And a Registrar might receive 1.08 and the librarian 1.0. (The figures quoted here should be thought of merely as examples and in no way as specific recommendations.)
11. And, finally, we want to call attention once more to the poverty of TCT and to its need for the financial support guaranteed it by the founding act but not yet available to it.

APPENDIX: SOME PERTINENT QUOTATIONS

"School Crisis," Edward R. Kiunisala, Philippine Free Press, Manila, July 30, 1966.

Because the curriculum is saddled with language courses, schools and colleges have been turning out "multi-lingual illiterates." (p.67)

Filipino students, who wish to enroll in universities in Pakistan or Thailand are required to take a one-year refresher course before they are admitted. . . .Filipino students go to college a lot younger and less matured and prepared than students of other countries. (p. 67)

Contribution of Education to the Development of Human Resources in the Republic of the Philippines, Robert W. Smail, United States Agency for International Development, Manila, 1965. (Education Division, AID).

Either the Philippines has discovered the secret of providing a great amount of education for a very low cost, or finds itself sacrificing quality for quantity. (no page number)

Part of this problem is perhaps caused by the general scarcity and wide geographical dispersion of the public trade and vocational schools This perhaps, points out the need for providing secondary schools with broader curricula and more freedom for exploration of interests. (no page number)

Planning for Children and Youth in National Development: The Philippine Experience, Asian Conference on Children and Youth in National Planning and Development, Bangkok, Thailand, September 13-24, 1965 (Office of National Planning, National Economic Council, Manila).

The move to decentralize the government initiated in the late 1950's is gaining momentum The present agitation is for more autonomy at the provincial, city and town level. (pp. 33-34)

In spite of the efforts and solicitude of the national government in providing for public education to its citizens the consistently large number of school dropouts and out-of-school youth remain one of its biggest problems. For every 100 pupils who entered the first grade in 1956 only 43 reached the sixth grade in 1961. Moreover for every 100 pupils who enter the first grade on the average only about 25 per cent enter the first year high school and about 15 percent finish high school. (p. 89)

. . . close scrutiny of the higher education structure showed a heavy top and a heavier bottom but a fairly weak middle indicating a lack of the middle manpower: the technicians, engineering assistants, medical technologists, agricultural technicians, etc. (p. 90)

Since the state of national finances cannot meet both the quantitative and qualitative needs of education the decision will have to be reached someday as to whether or not some of the enrollment targets may be reduced or adjusted in order to transfer some of the expenditures to finance qualitative educational improvement. (p. 94)

Republic Act No. 679 (1952) is the present law regulating the employment of children. It sets the minimum age for employment in industry at 16 years; in agriculture 14, and light work in agriculture, commerce and industry below 14 years. (p. 99)

Although the need to increase job opportunities for the young is very great and quite urgent it is not possible to accurately estimate such need in the absence of valid and reliable data or a scientific survey. (p. 103)

Vocational Industrial Education in Newly Developing Nations, Sidney C. High, Jr., Study No. 1, Comparative Education Series, School of Education, Stanford University, 1960.

. . . the leaders of the newly developing nations look to education -- particularly vocational education -- to revolutionize the life of their people . . . Vocational education has become a major weapon in the struggle of economic growth. (iii)

The mechanics courses continued to attract the largest percentage of students. However, the percentages enrolled in furniture making and building construction had been reduced and the percentages enrolled in electrical and metalworking courses had been increased. (p. 2)

The industrial teacher education curriculum had been lengthened and elevated from a two-year curriculum at the junior college level to a full four-year curriculum at the college level. (p. 4)

Greater autonomy and flexibility are to be granted to local school administrators in operating the training programs. Auditing and accounting rules and regulations which handicap the training program are to be reduced to a minimum. (p. 14, quoting Philippine Agricultural and Industrial Development Program, Philippine Economic Survey Mission, Manila, August 11, 1950)

More intensive short-unit courses are to be organized and offered in the vocational industrial schools both for youths and for adults on a day and evening class basis . . . (p. 14, quoting from source referred to above).

The execution of the project was weakened by the lack of detailed data on the labor force and on occupational trends. . . (p. 32)

One more weakness that should be mentioned in the execution of the project was the lack of progress in the development of evening courses for employed workers, in-plant training courses, and cooperative training arrangements between the schools and industrial concerns. For the most part, the Philippines vocational industrial schools concentrated on regular in-school daytime courses for school age groups. (p. 33)

If items of wooden furniture. . . are to be provided for the vocational industrial schools. . . consideration should be given to having this furniture made in the school shops. . . students will gain valuable experience in the use of tools and machines and, by participating actively in the improvement of the school, will develop a feeling of pride in and responsibility for the school facilities." (p. 43-44)

The project will be more effective and will make a more immediate contribution to the national economic development program if the vocational industrial schools can be stimulated to broaden their activities and to engage in part-time training for adult workers and in various types of cooperative training activities with local industries. (p. 47)

The proposed provincial or state vocational industrial school would be located in the provincial or state capital and would offer a four-year program to boys and girls from 14 to 18 years of age who had completed at least 6 years of elementary school. If conditions. . . would permit, it would be preferable for the school to offer a four-year program to youths from 16 to 20 years of age who had completed at least 2 years of general high school. (p. 48)

The provincial or state vocational industrial school for 500 students would require shop buildings with a total floor area of approximately 19,200 square feet. (p. 50)

The school would need expendable supplies amounting to about 200 pesos per pupil per year. (p. 52, referring to 1954 costs as a base).

The urban vocational industrial school or college would offer a two-year program at the junior college level for students who had completed the provincial or state vocational industrial

school In the urban institutions, students who had graduated from the provincial vocational industrial schools would receive more advanced training of a more specialized character. (p. 53).

The urban school or college also might operate related classes for apprentices as well as foreman supervisory training courses. The school would work in close cooperation with the industrial management and labor groups and would maintain a flexible program, adjusted constantly to fit the changing requirements of the community. (p. 54)

An urban vocational industrial school or college might have two types of auxiliary departments. The first would be a secondary school department, providing secondary-level vocational industrial education for students who were residents of the city. Upon completion of the secondary school department, the city student either might seek immediate employment or might go on into the junior college level program, where he would join the students coming from the provincial or state vocational industrial schools. The second type of auxiliary department would be a teacher education department. This department would operate a four-year college level program preparing teachers of industrial subjects. (p.54)

The first two years of study in the teacher education department could be identical with the two years of study in the junior college level program of the urban vocational industrial school. (p. 57)

In addition to pre-service teacher education during the regular school year, the teacher education department would operate summer school classes for employed teachers. (p. 58)

A Survey of the Public Schools of the Philippines -- 1960, J. Chester Swanson, staff leader, United States Operations Mission to the Philippines, 1960, (printed by Carmelo & Bauermann, Inc., Manila)*

Furnish more texts, references, and instructional materials. . . .
Provide more helpful supervision of teaching. (p. xiv)

Levy a local tax dedicated for public schools. (p. xv)

Furnish more textbooks, better libraries, and adequate instructional materials. (p. xv)

Strengthen the guidance program. (p. xvi)

. . . provide for three phases of vocational training: PHASE One -- a two-year program of studies beginning at the third year of the secondary level to train a general mechanic or farmer with skills for which there are widespread employment opportunities.

*Incomplete sentences quoted herein result from the fact that individual items have been abstracted from lists of recommendations. Underlining indicates the use of italics in the original text.

PHASE TWO -- A two-year program of studies following the training provided in PHASE ONE, which will develop a skilled tradesman or agriculturist. This training to be given only in vocational schools. PHASE THREE -- A two-month to two-year program of studies following PHASE TWO, or extensive experience, to provide technical experience, to provide technical training of highly specialized skills for known employment possibilities. This training to be given only in a few vocational schools with specially trained and experienced teachers, where adequate and appropriate equipment and materials are available. (pp. xvi-xvii)

Re-study vocational training for girls -- Differentiate between trade training and training for home making Consider additional programs of studies in practical nursing, office skills, merchandising, etc. (p. xvii).

Develop a plan to market the products of home industries. (p. xvii)

Delegate more responsibilities to superintendents for appointment and transfer of personnel, and for expenditures of funds. Provide for a program of maintenance of buildings. (p. xix)

Extension of educational radio programs and improvement of teachers' speaking ability so that children in more schools can hear an excellent model of English. (p. 74)

The Survey Team recommends that Mathematics be taught functionally to be of real value to the students. (p. 125)

The Survey Team recommends that: . . . More laboratory equipment, even of the simplest type, be secured. Some of this can be made at the school. or procured from interested sources within the community. . . . General science be given a personal and community emphasis, with attention to health, community welfare, etc. . . . The science offering for the vocationally bound student in the two upper years be related more, directly to his vocational goals. (p. 131)

Extension of educational radio programs and improvement of teachers speaking ability so that children in more schools can hear an excellent model of English. (p. 74)

. . . the requirement of Spanish for all students at any level, secondary or collegiate, is highly questionable, and the waste entailed in repetition of content at the two different levels is especially unfortunate in a curriculum already admittedly overcrowded. (p. 134)

Spanish should be placed in the same category as other foreign languages, as an elective. (p. 135)

The neglect of folk music, dance, art, and drama is a tragic loss to the cultural heritage of the Philippines Music of all types should be encouraged in the schools. Much of this can be vocal, with little expense. (p. 135)

More consideration be given to practical arts of a general nature, providing both for skills important to the citizen in general and for skills important as basic preparation for more specialized training later on in trade school. (p. 137)

Efforts be made to develop tests and local standards on such tests. (p. 150)

Immediate attention be given to the basic causes of failure, to discover what major factors are involved. (p. 162)

The buildings vary considerably in attractiveness, durability, and utility. There is often evidence of rotting, rusting, and general deterioration. Some buildings were observed where equipment was in danger of deterioration due to faulty roofs. Painting the buildings at regular intervals would be an economical practice. It would lengthen their usefulness and make them much more attractive. (p. 202)

The sanitary condition in many buildings is quite unsatisfactory. The odor, the uncleanliness, and the plumbing fixtures which do not operate, cause a possible health hazard, and seem inexcusable in a school which teaches, health, citizenship, and plumbing. (pp. 202-203)

Production may help provide materials for instruction, bring in funds to help with other operating costs, and give the students a real insight into working conditions of the trade. When these are the results, then production in a school shop is good and should be encouraged. (p. 203)

A study of this program of study justifies the following conclusions regarding the agricultural school curriculum: (1) The eight or nine subjects in each day's program gives a student an exceedingly heavy schedule. (2) There is not sufficient time for proper study and preparation to pursue all these subjects successfully. (3) It would appear that the agricultural school student is carrying the agricultural studies in addition to the general high school's academic curriculum. (p. 212)

Situation Three -- in which a vocational school exists in the same community with a general high school. In this situation, the general high school would give all the work in the first two years, except where the schools were adjacent. Then the vocational school might give the practical arts activities of shop and agriculture for the high school. The high school would

give all of the instruction to students in the college preparatory and general courses in the third and fourth years. The vocational school would give all phases of the vocational curriculum as suggested for the 2-2 Plan high school The vocational school would have more mature students and would be giving more advanced work to a more select group of students. (p. 222)

A differentiated curriculum is necessary to meet individual differences and a variety of national needs. (p. 225)

The practical arts activities (industrial and agriculture) . . . in years one and two of the high school should be re-studied and organized to better serve as a guidance program in helping students acquire a broad experience related to many occupations. (p. 226)

It is a basic assumption that any student taking a vocational course would not be preparing to enter college to pursue a profession, but that his objective would be an occupational skill. Purely college preparatory courses should not be required for vocational students. (p. 227)

Require students to take science, and mathematics related to their occupations, but not more than is necessary. . . .
Require students to take classes which will train for good citizenship Permit elective classes to meet the interests of the students and to broaden their sphere of knowledge. (p. 228)

That home economics be continued as a required subject for girls in . . . the first and second years of all secondary schools
That home economics courses continue to be available on an elective basis in the third and fourth years of secondary schools, to college preparatory students. (p. 245)

That trade courses for girls be developed for the third and fourth years of the 2-2 Plan high school, and for corresponding years in the vocational school The courses offered should train for employment opportunities in the community which the school serves. (p. 246)

The follow-up and placement studies be more detailed and continuous for all students who leave school. The results of these studies should be used as a basis for changing the program of studies and the number of students in training. (p. 258)

Research be continued to improve the tests which are now available, and additional tests be developed. There is a particular need for performance tests to be developed for all the trade and agricultural areas where instruction is being given. (p. 259)

Provision of adequate equipment for the printing of necessary bulletins and pamphlets for use in leadership training. (p. 283)

That a long-term program of adult education be projected in order to accelerate the eradication of illiteracy, and to provide the basic education needed by adults and out-of-school youth for a minimum level of civic and vocational competence. (p. 283)

That any school having an enrolment of 500 or more students have a person to head up the instructional program . . . As the school approaches 1,000 enrolment, the position should become a full-time one. (p. 312-313)

That additional clerical help be provided to render clerical service to the Deans, the Librarian, the Supervisors of student teaching. . . . (p. 313)

The Survey Team members feel unanimously that Spanish as a required subject ought to be removed from the curriculum pattern, and they urged strongly that every possible move be made to have Congress remove this requirement. (p. 320)

But even if Spanish were completely eliminated the curriculum would still be heavy -- 139 hours, which is really 144 The recommendation is made, therefore, that the total number of curriculum hours be reduced. . . . This will mean that no student will have a semestral load of more than 20 hours and that if and when the Spanish requirement be removed the total of hours required for graduation will be 130 which is a much more realistic figure. Students in American colleges and universities with 12 years of public school education, with personal textbooks for every subject, with ample library resources, and with no need to study and recite in a foreign language are seldom permitted to carry as many as 20 hours unless their grades are unusually high, and the usual number of hours required for a bachelor's degree is 124.

The Survey Team members cannot agree with the practice that all subjects should have the same time requirements for credit. . . . (p. 326)

First of all, it should be said that in comparing Philippine Colleges with those in Europe or America the visitor is immediately faced with several local conditions that do not obtain elsewhere. First, the students are younger. They have had a briefer experience in elementary and secondary school. Second, they are studying, reading, and reciting in a language that is not their native tongue. Although they have been using this language in school for several years they still do not have the facility in its use that they do

in the language spoken at home and on the playground. Third, as a general rule, they lack personal texts and references purchased and owned by the student himself. Finally, in addition to the shortage of textbooks, they must use a library which is also short of materials in many areas. (p. 336)

They declaim rather than talk, and they recite rather than respond. (p. 351)

Some schools also have a "Guidance Counselor," but again this is often just a title bestowed on an already busy person. In a previous section of this chapter the recommendation has already been made that each school have a full-time Dean of Students. (p. 351)

Terminal Report on Industrial Arts Teacher Education, 1957-1960:
Iloilo School of Arts and Trades; Industrial Arts Consultant, Trade and Industrial Education Division, Philippines Bureau of Public Schools, Stanford University, 1960.

A scarcity of equipment, both in terms of machines and hand tools, is a problem of first magnitude in the schools of developing countries. In most cases these cannot be purchased but it is frequently possible to design and build simple tools and devices which can be used to increase production, to aid home industries, and improve the shop programs. (p. 60)

A system must be set up to supply repair parts and expendable accessories for any machine in the shop. A practicable maintenance system should be developed and rigidly enforced. (p. 61)

In general, funds are not available to Philippine schools for industrial arts instructional supplies. The types of work that can be offered and the projects that can be undertaken are, therefore, limited. . . . (p. 65)

It is recommended that the barrio craftsmen be brought into the teacher education institutions for training in improved methods and to aid in designing improved equipment for the craft. (p. 68)

Every effort should be made to encourage the preparation of textbooks written by Filipinos for the Filipinos. (p. 68)

In most secondary classes, the supply situation is even worse than in the intermediate grades. . . . As a result one frequently finds up to half of a class wasting time because there are no materials with which to work. (p. 83)

Too many credit hours are required for graduation. Even without fully meeting the requirements of the 24 credits in Spanish (which must sooner or later be implemented) students must

complete 161 credits for the Baccalaureate degree. This is equivalent to the credits required for a masters degree in most reputable universities in the United States This leaves little or no time for library work, research projects, recreation, experimentation or outside preparation of lessons. (p. 84)

A recent development has still further complicated the situation in industrial arts teacher education. A new curriculum for the preparation of vocational teachers was recently approved by the Bureau of Public Schools and the Department of Education. This curriculum is identical with the trade technical program for the first two years. A choice of a shop major must be made before or at the time of enrollment, and is pursued intensively (15 hours per week) for the entire two years. (p. 85)

There is a serious lack of textbooks adaptable to Philippine schools. (p. 93)

It should be evident that when Filipino students are required to carry loads of from 21 to 23 credits per semester they cannot do a conscientious job regardless of how hard they try. (p. 105)

There is a common saying among educators, the validity of which is easily demonstrable, that teachers teach as they are taught there can be no question but that the comprehensive general shop is the most practical form of organization for the Philippine schools. Yet nowhere in his preparation does the prospective teacher have experience in working in or helping to manage a real general shop unless he happens to be assigned to one for his practice teaching. (p. 107-9)

Terminal Report: Mindanao Agricultural College, 1957-1960, Stanford University, 1960.

One of the most serious problems. . . was the matter of procuring instructional supplies at the time they are needed. (p. 5)

Average crop yields and the average labor income of farmers in the Philippines are low However, experimental studies and experience of successful farmers show that increased yields can be obtained on a profitable basis when improved practices are followed. (p. 19)

Unfortunately, up-to-date references adapted to the Philippines are not available in many areas of technical agriculture. (p. 39)

Terminal Report: Philippines School of Arts and Trades, 1956-1959, Stanford University, 1959.

As the administrator gradually builds a more competent staff, he will need progressively to give staff members more opportunity

to participate in making decisions, planning budgets, and greater freedom in solving problems pertaining to their respective fields of specialization. (p. 3-4)

The total faculty, faculty groups, and committees must periodically meet to discuss ways of better meeting the needs of students. Staff members receive inspiration from one another in such meetings and conferences. A staff member must recognize and be guided by the fact that the school exists for the students and therefore each decision must be made in terms of the students' welfare. (p. 4)

Supplies and materials for instructional purposes should be made readily available to all instructors who need them. (p. 4)

Unless graduates are placed in positions for which they are trained, the primary objective of training them is not achieved. And so the need for placement services arises. (p. 4)

The present projection equipment has been repaired and additional new equipment is promised for next year. . . .The school generally should receive considerable benefit in the future from this expanded service. (p. 21)

PCAT's small budget made it difficult for the Administration to allocate adequate amounts to instructors to purchase supplies in their respective fields but basic instructional supply support to instructors who were responsible for implementation of the industrial teacher training program could not be overlooked if progress was to be stepped up. (p. 40)

Terminal Report: Central Luzon Agricultural College, 1956-1959, Stanford University, 1959.

The American personnel soon realized that many improvements and changes would be difficult to initiate because of restrictive government regulations pertaining to procurement of supplies and services, funding and budgeting, utilization of personnel, and curriculum. (p.2)

In keeping with our shift in emphasis from the physical working conditions to curriculum matters, we recently have given more attention to teaching aids. (p. 12)

One of our early observations had to do with the shortage of textbooks, and most surprising to us was the fact that both teachers and students seemed indifferent to the problem. In nearly all subjects much of the teaching was done by lecture, by note-taking, and by using the blackboards. (p. 14)

Much more can be done to help Filipino teachers and students to improve their English. Many experience difficulty in proper pronunciation. . . . Since English is the medium of instruction throughout the Philippines, it is imperative that it be used correctly and effectively. (p. 16-17)

Progress has been made toward setting up a functional student personnel services program. Certain guidance tools and materials such as student accumulative records have been locally developed and put into use. All faculty have been made aware of and have developed a guidance point of view. (p. 19)

Library hours, realistic class schedules which would permit library use -- these and a host of similar problems remain yet to be solved. (p. 19)

Some faculty interest in establishing a professional library was created. (p. 19)

Too many cases exist of practicums used mainly to accomplish routine chores. . . . Practicums are also being revised so that they will serve as media for learning skills and not degenerating into mere labor battalions. (p. 21)

There is very little evidence of campus sanitation improvement. The college physician and others are very much aware of the need. Finances and, above all, the will to improve sanitation seem to be the chief barriers. Open drains, lack of adequate toilet facilities. . . .prevent good sanitary measures. (. . 21)

Teaching aids of various kinds have been developed, purchased, and otherwise procured for faculty use. Most gratifying is the effective manner in which many of these teaching aids have been employed to improve instruction. (p. 23)

This continuous daytime power schedule has greatly increased faculty efficiency; has provided badly needed lighting in classrooms, laboratories, library and the like during storm or dark periods has enabled laboratory equipment and shop tools to be utilized more efficiently; and has otherwise improved the program. (p. 24)

Facilities now available are rapidly deteriorating because of inadequate maintenance. (p. 25)

A Report of the Activities and Accomplishments of the Stanford University Team at the Philippine School of Arts and Trades in Manila Working Under the Stanford University-Philippine Department of Education-ICA-Washington Contract, from June 1, 1956 to May 31, 1958 (inclusive), Claude H. Ewing (mimeographed, further publication data not available).

The school should be free to do production work in accordance with good instructional practices. That is, to enhance the instructional program but not dominate or sabotage instruction. The proceeds of production should be available to replace machinery parts and to improve the school facilities. . . . (no page number)

Vocational Education and Economic Development in the Philippines,
Republic of the Philippines, Department of Education, Bureau of Public
Schools, 1956 (Bureau of Printing, Manila).

There are five curricula in agricultural education: 1) Four-year
Secondary Agriculture, 2) One-year Post Graduate Farm Mechanics,
3) Two-year Technical Agriculture, 4) Two-year Teacher Education,
and 5) Four-year Teaching Education. (no page number)

Check Lists for the Supervision of Trade and Industrial Education, Bulletin
Number 37, Series, 1956, Bureau of Public Schools Trade and Industrial
Education Division, Manila.

One of the most important responsibilities of trade and technical
school personnel, from the shop teacher to the superintendent, is
to see to it that the school shops, including all their tools,
equipment, and other instructional facilities, like devices and
materials needed for effective instruction, are maintained at all
times in the best possible condition for maximum usefulness. (p. 1)