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Value Orientations of Central Philippine University Faculty *

Macario B. Ruiz

This study aimed to gather information on the value orientations of the faculty members at Central Philippine University. Incidentally, it should be mentioned that this is just one of the many facets of the preparation of instruments of measurement designed for institutional self-analysis.

But why study the value orientations of teachers in this school? Isn't this an exercise in futility, particularly in the context of a pluralistic society. What have these orientations got to do with their work as teachers?

If we consider the fact that value orientations are in the center of the attitudinal domains in psychological space, and if these "give order and direction to the ever-flowing stream of acts and thoughts as these to the solution 'common human' problems" [Kluckhohn, et al:1961], it is entirely possible that these values will affect the teachers' attitude towards their students, the subject matter they are teaching, and more importantly, towards the concomitant learnings that they intentionally or unintentionally impart daily.

*First of two studies by Dr. Macario Ruiz on value orientations of Central Philippine University faculty and students.

DESIGN OF STUDY. This design is a modification of Kluckhohn and Strodtbeck [Kluckhohn, 1961], with adaptations from Mead [Mead, 1970], ideas from Lynch [Lynch, 1962], Gorospe [Gorospe, 1966], and Weber [Weber, 1958]. It adopts four of five value orientations known to be universal in application. The fifth is on the nature of man, the postulated variations of which are (a) man is by nature good, (b) man is by nature bad, and (c) man is a mixture of good and bad. It was thought that this dimension does not have as much relevance to behavior as the other four. These four are explained below.

(1) *Man-Nature Orientation*. This refers to one's attitude towards nature or the environment. It has three postulated variations.

(a) *Subjugation to nature*. Some people believe that nature controls man, that he is a slave to his environment, that destiny is pre-determined.

(b) *Harmony with nature*. Others would go for this second variation, that man and nature co-exist, are in harmony, that both are part of the same ecology, neither of which should control or be controlled by the other.

(c) *Mastery over nature*. Those who are of this persuasion would control, change, or modify nature or the environment. This kind of life-style is, to them, the essence of progress.

Whichever variation an individual prefers, his position lies somewhere between the extremes of each variation. It is possible, too, that at one time or another, depending upon the circumstances and emotional set-up, his attitude may shift from one variation to the other, but with a good instrument, his orientation *in general* can be determined.

Item 25 of the questionnaire illustrates the variations of this value orientation.

Man should

(a) let his environment control him. (Subjugation)

(b) live in harmony with his environment. (Harmony)

(c) improve his own environment. (Mastery)

(2) *Activity Orientation*. This refers to a person's attitude towards human activities. There are three postulated variations, as in the case of the first value orientation:

(a) *Being*, which implies a spontaneous expression of what is conceived to be given in the personality, a release and indulgence of present desires. A person of this persuasion,

TABLE 1.0

Value Orientations and Their Postulated Range of Variations

Orientation	Postulated	Range	of	Variations
Man-Nature	Subjugation to Nature (Su)	Harmony with Nature (Ha)	Mastery over Nature (Ma)	
Activity	Being (Be)	Being-in-becoming (Bd)	Doing (Achievement) (Do)	
Relational	Lineality (Li)	Collaterality (Co)	Individualism (in)	
Time	Past (Pa)	Present (Pr)	Future (Fu)	

like the epicurians, would "eat drink, and be merry, for tomorrow, he will die." He would enjoy life, which, after all is short, and such enjoyment comes only when his desires have been satisfied. Basically, his frame of reference in the things he does is the self.

(b) *Being-in-becoming*, which implies a control of desire by means of meditation and discipline, sternness of character. The goal of the person of this persuasion is "to become," rather than "to be." Like the Taoist or the Buddhist, he controls his desires. He seems to live by the philosophy that the good man is a bad man if he remains just good: but the bad man is the good man if he tries to become good.

(c) *Doing* (Achievement), which implies a measurable accomplishment achieved by acting upon persons, things, or situations. The believer of this variation, like the pragmatist, says that the test of the pudding is in the eating. By the same token, the test of goodness is the activity, the process of achieving.

This item from the questionnaire illustrates this value orientation:

What do you think is a preferable attitude toward life?

- (a) Enjoying life, which is short after all. (Being)
- (b) Trying to become a worthy man. (Being-in-becoming)
- (c) Trying to achieve something great that will remain after death. (Achievement)

(3) *Relational Orientation*. This represents value orientations on a person's relationship to other men. It has three postulated variations:

(a) *Lineality* is a principle in human relationships, which comes both from age and rank. The young are supposed to respect, obey, and accept the authority which resides in those who are older - the children in relation to their parents, in turn to their own parents, the subordinate in relation to the boss, the led to the leader. This is an institutionalized culture pattern, which, we are told, is necessary for organizational continuity. One sees this manifested in Chinese traditional society and in military organizations.

(b) *Collaterality* is a principle of human relationship in which each individual is a part of the social order. The preference for group authority over person authority, for majority rule over rule of a single person is evident in this variation of relational value orientation. In short, relationship is laterally extended (horizontal) rather than lineally (vertical).

(c) *Individualism* is a principle of human relationships in which each individual in the society is responsible for himself, that the autonomy of the individual is the important thing. People of this persua-

sion are "inner-directed, or "self-directed," they want to follow their own life-style, and do not really care what others say.

An item which illustrates the variations of this relational value orientation is:

Which of these do you think is the most important in life?

- (a) To be trusted by superiors. (*Lineality*)
- (b) To be trusted by fellow workers. (*Collaterality*)
- (c) To be confident of oneself. (*Individualism*)

(4) *Time Orientation*. This relates to one's preference towards problems that have to do with time. It has also three postulated variations.

(a) *Past*, as one variation, consists in preferring traditionalism of family, nature, and emphasis on the historical heritage.

(b) *Present*, means that people of this persuasion tend to give more preference to things of the present and to pay little attention to what has happened in the past and to regard the future as vague and unpredictable. "Act in the living present," as the poet says, would seem to be the guiding philosophy of these people

(c) *Future*, means looking forward to the future to be "bigger and better," since this is their expectation, the "futurist" would plan for it.

Here is an item which is designed to measure these variations:

More efforts should be given to

(a) reviewing one's past. (Past)

(b) improving the present life. (Present)

(c) preparing for the future. (Future)

THE RESEARCH HYPOTHESES.

The following were the research hypotheses: (1) As a group, the teachers are oriented primarily to the mastery-over-nature variation of the Man-Nature value orientation dimension. The basis of this hypothesis is that the group consists of college graduates, and we assumed that they are relatively free from the life-style of traditional and primitive societies and have been exposed to the influences of modernity in an agro-industrial economy.

(2) As a group, the teachers are equally "future and present" oriented, rather than "past" oriented. The Filipino, as an Oriental and

Malayan, lives in and for the present; however, he has been influenced by Occidental countries, which are, for the most part, "future" oriented /Lee, 1972/. It was suspected that both these dimensions of the time orientation would prevail in our culture, more or less, in equal measure.

(3) As a group, the teachers are "doing" (achievement) oriented, rather than "being-in-becoming" or "being" oriented. This is true in the case of modern or semi-modern cultures, particularly those which are materialistic.

(4) As a group, the teachers are "individualism" oriented, in preference to the other two variations of the relational dimension. The basis of this hypothesis is the fact that most of the respondents are reared in a democratic society - at least relatively - and since this is so, the primacy of the individual is stressed, as it is in most democratic countries. The negative ramifications of such common utterances in the dialect as "Iya kalag, iya bakero," "Bisan maguba ang langit, basta indi lang ako ma-ipit," also had some bearing on the adoption of this research hypothesis.

The sample. One hundred and sixty-five teachers out of 183, made up the sample, representing 90 per cent of the total number in the faculty. Those who did not follow the directions on the questionnaires were excluded from the tabulations. There were four of the latter.

METHOD OF SCORING. Since there are twelve scales in the instrument, the answer sheets were scored twelve times, three times for each of the four value orientations. Three keys to correction were prepared, each with a "keyed direction" of the first preference. For instance, in the case of time orientation:

Key 1: With Past as the first preference. Here if the respondent ranked the "Past" variation as 1, the respondent was given three points for the particular item; if he ranked it 2, he was given 2 points; and if he ranked it 3, he was given one point. His total score would thus be the sum of the points on the ten items. Let us say he ranked as 1 all the items with Past variation as specified in the key to correction, his score would be a maximum of 30 ($3 \times 10 = 30$). On the other hand, if he ranked all the ten items, 3, his score would be 10 ($1 \times 10 = 10$). Similarly, if he ranked the ten items 2, his score would be 20 ($2 \times 10 = 20$).

Key 2: With Present as the first preference. The same procedure was followed, except that in this case, the *Present* variation was given a weight of 3. If, for example, the respondent ranked an item of this category 3, he would be given a score of 1 on this item; if he ranked it 2, he would be given a score of two; and if he ranked it 1, he would be given a score of 3 on this item.

Key 3: With Future as the first preference. The same procedure was followed with the *Future* variation as the first preference.

It is thus possible to compare the scores of a respondent in the three postulated variations of each value orientation. For instance, the scores of one respondent are as follows:

Future Variation - - - - 20

Present Variation - - - - 24

Past Variation - - - - - 16

Within the limitations of probability, errors of measurements, and sampling, the "orientation" of this respondent on time value orientation is the present. He tends to give preference to things of the present as against the future or the past.

FINDINGS. The findings are reported in the tables below.

Man-Nature value orientation.

Table 3. 1a
Distribution of Scores on Postulated Variations
Man-Nature Orientation

Scores	Mastery Over Nature (Ma)	Harmony with Nature (Ma)	Subjugation by Nature (Su)
30	5	—	—
29	30	—	1
28	36	—	—
27	40	—	—
26	20	—	—
25	11	—	—
24	12	2	—
23	3	6	—
22	2	23	—
21	3	45	1
20	—	41	2
19	—	27	1
18	—	13	3
17	—	5	3
16	1	2	2
15	—	—	11
14	—	—	21
13	1	—	36
12	1	—	35
11	—	—	42
10	—	—	6
N	165	165	165
Median	26.35	20.37	12.50

The data substantiated Research Hypothesis (1), that the teachers as a group are mastery-over-nature

oriented. The differences in the medians (Table 3. 1a) are too big to be attributed to chance or sampling

Table 3. 1a

	Mastery Over Nature (Ma)	Harmony with Nature (Ma)	Subjugation by Nature (Su)
SD	2.63	1.54	2.60
SE _{mdn}	.26	.16	.26
SE _d (Ma-Ha)	.305		
CR(Ma-Ha)	21.00		
SE _d (Ha-Su)		.305	
CR(Ha-Su)		25.00	
SE _d (Ma-Su)			.366
CR(Ma-Su)			39.00

Note: All differences of the medians are significant at the 1 per cent level.

errors. Table 3. 1b shows that about 80 per cent of the group have high scores on the "mastery over nature" variation, whereas nearly 73 per cent scored very low on the "subjugation to nature" variation. The conclusion is thus apparent: The group is "mastery-over-nature," "harmony-with-nature," and "subjugation to nature," oriented in that order. They believe in change, but its direction should be charted, that when they find themselves in most difficult situations, they would improve the situation rather than take things philosophically.

The data on this dimension were further analyzed to answer this question: Basically, what is the direction of the differences between each teacher's scores on the mastery-over-nature variation and the second choice, harmony-with-nature variation? What per cent of the teachers are, on the basis of their scores, more harmony-with-nature oriented rather than mastery-over-nature oriented? Are there teachers who had equal scores on both scales? The findings are presented in Table 3. 1a.

Table 3. lb
 Percentages of Number of Respondents Based on
 Very High, High, Medium, Low and Very Low
 Scores – Man Nature Orientation

Scores	Category	Mastery Over Nature (Ma)		Harmony with Nature (Ha)		Subjugation Nature (Su)	
		No.	%	No.	%	No.	%
26 – 30	Very High	131	79.38	—	—	2	1.21
22 – 25	High	28	16.97	33	19.39	1	
18 – 21	Medium	3	1.82	126	76.36	6	3.64
14 – 17	Low	1	.61	7	4.24	37	22.42
10 – 13	Very Low	2	1.21	—	—	119	72.11
Total		165	99.99	165	99.99	165	99.99

Note: The highest possible score is 30; the lowest, 10. The division into five groups, with intervals indicated under "Scores" is arbitrary.

Time Orientation. As mentioned in the previous section (Section 1), time orientation has to do with one's preferences to problems or matters that have to do with the past, the present, or the future. The findings on this value orientation are reported below.

The data do not confirm Research Hypothesis (2). It turns out that the teachers as a group are "present" oriented, rather than equally oriented to the future and

the present. The difference between the medians is too big to be attributed to chance or sampling errors. The percentages do not show the same general trend, however, as in the case of the Man-Nature dimension (See Table 3. lb). This time, only about 8 per cent had "very high" scores on the "present" variation, as against 79 per cent in the case of the former. In the instant case, about 53 per cent made scores from "high to very high," whereas in the former 96 per cent made scores on these two categories.

Table 3. 1c
 Direction of Raw Score Differences Between the
 Mastery-over-Nature Vs Harmony-with-Nature
 Variations (Man-Nature Orientation)

Difference	No.	Sub-total	Per Cent	
14	1			Table reads: Ninety-six per cent of the teachers have higher scores on the mastery - over-nature scale than on the harmony - with-nature variation. This represents a significant difference at the 1 per cent level; One teacher had equal scores on both scales; Five teachers or 3 per cent have higher scores on the harmony-with-nature scale than on the mastery-over-nature.
13	2			
12	4			
11	8			
10	9			
9	23			
8	18			
7	26			
6	18			
5	20			
4	13			
3	8			
2	4			
1	<u>5</u>	159	96.35	
	<u>1</u>	1	.61	
- 1	1			
- 2	1			
- 3	-			
- 4	-			
- 5	-			
- 6	-			
- 7	1			
- 8	<u>2</u>	5	3.03	
Total	165	165	99.99	

TABLE 3. 2a
 Distribution of Scores on Postulated
 Variations: Time Orientation

Scores	Future (Fu)	Present (Pr)	Past (Pa)
30	—	—	—
29	1	—	—
28	—	1	—
27	1	3	—
26	1	9	1
25	1	10	1
24	10	15	—
23	4	21	1
22	18	29	—
21	23	24	4
20	31	22	2
19	28	8	6
18	21	8	19
17	9	4	24
16	8	8	34
15	5	2	25
14	2	1	15
13	2	—	16
12	—	—	4
11	—	—	2
10	—	—	1
N	165	165	165
Median	19.74	21.70	16.07
SD	2.58	2.94	2.35
SE _{mdn}	.25	.29	.23
SE _d (Fu-Pr)	.38		
CR (Fu-Pr)	5.6		
SE _d (Pr-Pa)		.37	
CR (Pr-Pa)		15.0	
SE _d (Fu-Pa)			.34
CR (Fu-Pa)			10.8

Note: All differences in the medians are significant at the 1 per cent level.

TABLE 3. 2b
Percentages of Number of Respondents Based on
Very High, High, Medium, Low, and Very Low
Scores – Time Value Orientation

Scores	Category	Future		Present		Past	
		No.	%	No.	%	No.	%
26 – 30	Very High	3	1.82	13	7.88	1	.61
22 – 25	High	33	20.00	75	45.45	2	1.21
18 – 21	Medium	103	62.42	62	37.57	31	18.78
14 – 17	Low	24	14.54	15	9.09	108	65.45
10 – 13	Very Low	2	1.21	—	—	23	13.94
Total		165	99.99	165	99.99	165	99.99

This suggests that the group is more “mastery-over-nature” oriented than “present” oriented. The comparison is valid, since there are equal number of highest and lowest possible scores in both dimensions.

To these teachers, concern for the present life is more important than preparing for the future, which is, to them maybe, uncertain. One is reminded of the verse in the Bible, “. . . do not be anxious about tomorrow”. . . (Matt. 6.34). Or perhaps, this group of teachers cannot but live in the present, what with the cost of living so high that being concerned for the future is simply out of the question. One has to be able to meet the basic needs in the present before he can think of the future.

Findings on the direction of the differences between the present and the future variations of the time value orientation are given in Table 3. 2c.

Attention is invited to the twelve teachers who are, as measured by the scales, equally future and present oriented. It would be interesting to find out what kind of background, personal or professional, they have.

Activity orientation. The findings on this value orientation are reported below. The reader may want to refer to the definition of the three postulated variations discussed in Section 1.1.

TABLE 3. 2c
 Direction of Raw Score Differences between the Present
 and the Future Variations: Time Value Orientation

Difference	No.	Sub-total	Per Cent	
11	4			Table reads: Sixty-one per cent had higher scores on the present variation than on future variation;
10	1			
9	—			
8	9			
7	12			
6	10			
5	10			
4	12			
3	13			
2	10			
1	<u>19</u>	100	60.6	Seven per cent had equal scores on both variation;
0		12	7.27	Thirty - two per cent had higher scores on the future than on the present variation.
- 1	18			The difference of 29 per cent in favor of the present variation (61% - 32% = 29%) is significant at the 1 per cent level, CR being 3.2 where 2.58 is required.
- 2	11			
- 3	8			
- 4	4			
- 5	4			
- 6	4			
- 7	3			
- 8	—			
- 9	<u>1</u>	53	32.12	
Total	165	165	99.99	

TABLE 3. 3a
Distribution of Scores on Postulated Variations:
Activity Value Orientation

Scores	Doing (Achievement)	Being-in-becoming	Being
	(Do)	(Bb)	(Be)
30	—	—	—
29	—	2	—
28	—	12	—
27	1	21	—
26	1	25	—
25	2	20	1
24	3	29	—
23	8	17	—
22	15	18	4
21	20	8	3
20	23	8	8
19	28	4	11
18	32	—	20
17	16	—	20
16	9	1	23
15	4	—	32
14	3	—	30
13	—	—	5
12	—	—	5
11	—	—	1
10	—	—	—
N	165	165	165
Median	19.16	24.40	15.88
SD	2.38	2.53	2.32
SE _{mdn}	.23	.24	.22
SE _{d(Do-Bb)}	.33		
CR(Do-Eb)	16		
SE _{d(Bb-be)}		.33	
CR(Bb-be)		26.0	
SE _{d(Do-be)}			.32
CR(Do-Be)			10.2

Note: The median differences are significant at the 1 per cent level

TABLE 3. 3b
Percentages of Number of Respondents Based on Very High,
High, Medium, Low, and Very Low Scores
Activity Value Orientation

Scores	Category	Doing		Being-in-becoming		Being	
		No.	%	No.	%	No.	%
26 – 30	Very High	2	1.21	60	36.36	—	—
22 – 25	High	28	16.97	84	50.90	8	4.85
18 – 21	Medium	103	62.42	20	12.12	39	23.63
14 – 17	Low	32	19.39	1	.61	107	64.84
10 – 13	Very Low	—	—	—	—	11	6.67
Total		165	99.99	165	99.99	165	99.99

Research Hypothesis (3), that the teachers as a group are “doing” (achievement) oriented is not substantiated by the data. The group is “being-in-becoming” oriented, first, and “doing” oriented next. The median differences are too big to be attributed to chance or sampling errors. The group would tend to be contemplative rather than active, to set their goals on the improvement of the self, rather than achieve what is great or significant through activity. They are for self-actualization, although their perception is towards

the self. The group, however, is not “static” as seen from the low scores in the “being” variation. Table 3. 3b reveals that 87 per cent of the respondents have scores ranging from high to very high on the “being-in-becoming” scale, as against 18 per cent on the “doing” (achievement) scale.

The findings on the direction of the differences between the “doing” scale scores and the “being-in-becoming” scale are reported in Table 3. 3c

TABLE 3. 3c

Direction of Raw Score Differences on the "Being-in-becoming" and "Doing" (Achievement) Variations – Activity Dimension

Differences	No.	Sub-total	Per Cent	
14	2			<p>Table reads: Eighty-four per cent of the teachers had higher scores on the "being-in-becoming" scale than on the "doing" scale;</p> <p>Four per cent of the teachers had equal scores on both scales;</p> <p>Twelve per cent had higher scores on the "doing" scale than on the "being-in-becoming" scale.</p> <p>The difference of 43 per cent between the two variations in favor of "being-in-becoming" can be presumed to be significant at the 1 per cent level, since this is much bigger than in the case of the present and future variations (See Table, 3. 2c).</p>
13	2			
12	1			
11	5			
10	15			
9	7			
8	13			
7	15			
6	20			
5	11			
4	18			
3	10			
2	13			
1	7			
		139	84.24	
0	7	7	4.24	
- 1	4			
- 2	3			
- 3	3			
- 4	4			
- 5	2			
- 6	1			
- 7	2			
		19	11.51	
Total	165	165	99.99	

TABLE 3. 4a
 Distribution of Scores on Postulated Variations
 Relational Orientation

Scores	Individualism (In)	Lineality (Li)	Collaterality (Co)
30	—	—	—
29	—	—	—
28	3	—	—
27	25	—	—
26	23	—	1
25	23	—	3
24	32	—	5
23	29	1	16
22	10	2	26
21	7	—	38
20	4	6	36
19	1	5	16
18	4	11	10
17	2	18	10
16	1	28	3
15	—	30	—
14	1	26	1
13	—	24	—
12	—	10	—
11	—	2	—
10	—	1	—
Total	165	165	165
Median	24.27	15.15	20.67
SD	2.49	2.86	1.85
SE _{mdn}	.25	.22	.18
SE _{d(In-Li)}	.31		
CR _(In-Li)	29.0		
SE _{d(Li-Co)}		28	
CR _(Li-Co)		20.0	
SE _{d(In-Co)}			.31
CR _(In-Co)			11.6

Note: All median differences are significant* at the 1 per cent level.

TABLE 3. 4b
 Percentages of Number of Respondents Based on Very High,
 High, Medium, Low, and Very Low Scores
 Relational Value Orientation

Scores	Category	Individualism		Lineality		Collaterality	
		No.	%	No.	%	No.	%
26 — 30	Very High	51	30.91	—	—	1	.61
22 — 25	High	94	56.56	4	2.42	50	30.30
18 — 21	Medium	16	9.70	22	13.33	100	60.60
14 — 17	Low	4	4.42	102	61.81	14	8.48
10 — 13	Very Low	—	—	37	22.42	—	—
Total		165	99.99	165	99.99	165	99.99

The conclusion is that the teachers as a group are primarily “being-in-becoming,” “doing,” and “being” oriented in that order.

Relational value orientation. The findings on this dimension of value orientation are reported below.

Research hypothesis (4) is not confirmed by the data. As a group, the teachers are significantly more “individualism” oriented than “collaterality” oriented. Table 3. 4b shows that 86% of the respondents obtained scores on the *individualism* scale ranging from high to very high” as against 31 per cent on the collaterality scales. This implies that

they would rather be confident of themselves than be trusted by their superiors or their fellow workers. They tend to regard autonomy as the important thing in life.

Table 3. 4c shows that there are not necessarily more teachers who are “individualism” oriented than those who are “collaterality” oriented, a fact which is not true in the case of the other variations. The difference of 6 per cent is too small to justify the conclusion that it really accounts for a real difference in proportion. Such small difference must be due to chance or sampling errors.

TABLE 3. 4c
 Direction of Raw Score Differences on the Individual
 and the Collaterality Variations of the
 Relational Value Orientation

Differences	No.	Sub-total	Per Cent	
12	1			<p>Table reads: Fifty-one per cent of the teachers have scores higher on the "individualism" scale than on the "Collaterality" scale; Four per cent have equal scores on both scales; Forty-four per cent have scores lower on "Individualism" than on "Collaterality." The difference of 6.06% ($50.90 - 44.84 = 6.06$) is not significant at the 5 per cent level, the CR being only .076. A CR of 1.96 is necessary for the difference to be significant at this level.</p>
11				
10	5			
9	1			
8	3			
7	6			
6	10			
5	10			
4	11			
3	17			
2	14			
1	<u>6</u>	84	50.90	
0	7	7	4.25	
- 1	11			
- 2	11			
- 3	5			
- 4	9			
- 5	10			
- 6	6			
- 7	10			
- 8	6			
- 9	2			
- 10	3			
- 11	<u>1</u>			
		74	44.84	
Total	165	165	99.99	

TABLE 3. 5a
Distribution of Total Development Scores

Scores	No.	Sub-total	Per Cent	Category
120 – 123	–	–	–	Very High
116 – 119	–	–	–	
112 – 115	–	–	–	
108 – 111	–	–	–	
104 – 107	<u>–</u>	–	–	
		0	0	
100 – 103	3	118	71.51	High
96 – 99	23			
92 – 95	38			
88 – 91	<u>54</u>			
84 – 87	29	44	26.66	Medium
80 – 83	10			
76 – 79	3			
72 – 75	<u>2</u>			
68 – 71	2	3	1.82	Low
64 – 67	–			
60 – 63	–			
56 – 59	<u>1</u>			
52 – 55	–	0	0	Very Low
48 – 51	–			
44 – 49	–			
40 – 43	<u>–</u>			
Total	165	165	99.99	

Median – 90.1

SD – 6.08

SE_{mdn} – .59

A *total development score*. We are told that the variations of each of the four dimensions is associated with development attitudes [Lee, 1972]. Each is characteristic of people in developed countries but not so much of people in developing ones. These variations are (1) Mastery-over-Nature, (2) Future, (c) Doing (Achievement), and (4) Individualism. For purpose of this report, we accepted this assumption -- with reservation -- so as to be able to arrive at a composite score which would be reflective of the situation at Central.

Steps in the treatment of the data.

(1) The scores of each teacher on the four variations were summed to make up the total development score.

(2) The total development scores were next tabulated and the median, the standard error of the median, and the standard deviation were computed.

(3) In the absence of norms which serve as a frame of reference in comparing the relative standing of the teachers as a group, we did the following:

(a) Adopted a minimum total development score, which we thought would be somewhat "high" in relation to the highest possible

score of 30 in each of the four dimensions. This score was 22, which was, it should be noted, the lower limit of the "high" category of scores (Table 3. 1b).

(b) On this basis, the minimum total development score was 88 ($22 \times 4 = 88$). A subsequent statistical check revealed that, based on the tabulated data, this score was +1.31 z-score units *above* the theoretical mid-score of 80. Under the normal curve, this + 1.31 z-score exceeds 91 per cent of the entire number of cases in a distribution. This minimum total development was considered adequate for purposes of this analysis.

Findings. The findings are reported in Table 3. 5a, below.

It appears from the table that there are no teachers with "Very High" total development scores, nor are there any with "Very Low." Seventy-two per cent have "High" and 27 per cent have "Medium" total development scores.

If the median is 90, which is two score points higher than 88 the lower limit of the "High" category of scores, the conclusion cannot but be this: *As a group, the teachers are development oriented.* We are confident of this statement, since the difference of 2 ($90 \times 88 = 2$)

is significant at the 1 per cent level. The critical ratio is 3.4 where only 2.58 is needed for the difference to be significant at this level.

This is not to say that the teachers are in practice *development actuated*. What this says is that as a group, the teachers have a great potential for developmental practices in the educational and social tasks in the society. It must, of course, be admitted that there are other socio-psychological teacher factors which are predictive of developmental practices. We know some of these factors, we go by the research in other cultures, but what we do not know how much and what kind are present in the faculty. These could be valuable areas for further investigation.

CONCLUSIONS. The findings are summarized below. For a more meaningful interpretation of these findings, the reader might want to refer to the qualitative description of the different value orientations and their corresponding variations (Section 1.1).

1. The teachers are definitely "mastery-over-nature" oriented, primarily, and "harmony-with-nature" oriented secondarily. There are definitely more teachers of the former persuasion than of the latter.

2. The teachers are definitely "present" oriented primarily, and "future" oriented secondarily. There are definitely more teachers of the former persuasion than there are of the latter.

3. The teachers are definitely "individualism" oriented primarily, and "collaterality" oriented secondarily, if the degree or intensity of attitude is the criterion. However, there are not necessarily more teachers of the former than there are of the latter.

4. The teachers are generally "being-in-becoming" oriented primarily and "doing" (achievement) oriented secondarily. There are definitely more teachers of the former persuasion than there are of the latter.

5. On the whole, the teachers are development oriented, if one accepts the criterion that the composite score serve as the index of this orientation.

DISCUSSION. We started the previous section by saying that we accepted *with reservation* the definition of total development attitude as a combination of the four variations. We are concluding this report

by speculating, and the first point we are speculating on is "individualism" versus "collaterality." In a culture like ours, or in the context of our work as teachers, which might be given priority over the other?

"Individualism" as a value is basically Occidental, which has ramified into such correlates as self-realization, autonomy, freedom, rights, privileges, and such other concepts as related to the self. As a consequence, personal values like liberty, equality, and opportunity have been preached by pastors, priests, and professors alike. These concepts were exploited as vote-getting slogans by politicians.

These values were paramount when countries were not so congested with people and when living was not so complicated, not to say competitive. We still believe in these, to be sure, but in this day and age when literally there is hardly elbow room because of this population avalanche, it becomes more and more difficult to live in harmony and peace. In these congested areas, "survival of the fittest" has been the by-word of most. In Philippine setting, it has been a case of "individualism, run amuck," with the result that the survivors were those who initially had power and pesos

and came out with more power and more pesos. The economy became excessively lop-sided.

Perhaps more attention should be focused on the need for collaterality and on values which conduce societal welfare. Some of these values are cooperation, discipline, consideration, self-control, respect of law, responsibility, "other-ness," and altruism. After all, society is the bigger self, and the individual, the smaller. Self-realization is an idle goal in a society which does not permit it.

The second point is the variation "doing" achievement versus "being-in-becoming." As revealed by the data, the teachers as a group are "being-in-becoming" oriented. To them, the supreme good is the goal, which may be happiness, for one thing, or self-realization, for another. This is in contrast with "doing," which assumes that the good life is in *activity*, rather than in the attainment of a self-oriented goal per se. The "doing" oriented individual must find something to do, something he can do well, rather than something to eat or drink. He finds satisfaction in *doing*.

We have no quarrel about trying to become what one wants to be.

This is perfectly legitimate. But we must hasten to add that such a goal must be socially acceptable. Nor have we any objection to “doing” as one value orientation. We submit that purpose and process should be socially acceptable.

The implications of this in teaching are easily seen, although, unfortunately not easily done. We cannot attain democracy as a goal if we are in practice authoritarian. We cannot attain goals unless we act. We might have the best socially acceptable goals in our work, but they are meaningless if we do not act. One supervisor put it this way: “Plenty of action programs but no action — only *ningas cogon*.”

There seems to be a lot of good and promise in the fact that the teachers as a group are “present” oriented, that they are not entirely oblivious of the future. We can change the future if we improve the present. But one must also plan for the future. Central will have a better future only as we improve its present situation, which, we like to say, is not too hopeless nor too dim. This, of course, means enhancing the quantity and quality of our involvement in its plans and programs.

The beauty of it is that we are, as a group, development oriented. The real challenge lies in more action.

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The Response of Ipil-Ipil (*Leucaena Leucocephala*) to Soil pH *

Wilfredo G. Espada and Giovanni Gacho **

Ipil-ipil (*Leucaena leucocephala*) is a tropical leguminous plant generally referred to as the "alfalfa" of the tropics. It is gaining popularity as animal feed ingredient. The leaves are reported to contain 25 per cent crude protein and 0.04 to 0.07 per cent carotene (3).

Although the culture of ipil-ipil has not been given extensive attention, it is not uncommon to find them growing luxuriantly in the rolling or level areas in most places in the Philippines. They are used as shade for coffee, cacao, or ginger. The trunk and branches are excellent for making charcoal; the leaves are ground into meals for animal feeds. Attempts to grow them in acidic, reddish-brown Barotac loam soil at Camp Higher Ground, Barotac Viejo, Iloilo, resulted only in

stunted seedlings compared with those growing in the slightly acidic dark soil of that municipality.

Soil reaction affects plant development largely by its influence on the availability of certain elements essential for growth (5). Provided there is adequate nutrient, plants can tolerate pH fluctuation from 4.0 to 8.0; the growth is adversely affected only at pH below 3.0 or at pH above 9.0 (2). At low pH phosphorous, calcium, and magnesium usually become limiting or deficient; at high pH most micronutrients become hardly available.

Generally, legumes need soils of pH 6.0 or above for optimum growth. The soil reaction near neutral is also optimum for effective nitrogen fixation by most bacteria which live in association with the roots of legumes (1). For example

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** Dean and senior student, respectively, College of Agriculture, Central Philippine University, Iloilo City.

various strains of Rhizobia have optimum reaction for growth at pH 5.5 to 7.0 to 10 on the alkaline side (6). Nodulation in *L. leucocephala* is carried out by only a few strains of bacteria (4). This implies that the pH range for ipil-ipil may not be too wide.

The object of the study was to determine nodulation in and early growth of ipil-ipil seedlings under varying soil pH.

MATERIALS AND METHODS

Ipil-ipil seeds were sown in earthen pots filled with six kilograms of

either Sta. Rita clay loam or Barotac loam soils. The chemical properties of these soil types are given in Table I. The Sta. Rita clay loam has higher CEC, available phosphorus, extractable potassium, and pH than the Barotac loam soil. The exchange complex of the Barotac loam soil is highly saturated with hydrogen ions.

There were four pH treatments consisting of adjusting the pH of the potted soil to 3.5, 4.5, 5.5, and 6.5 with HCL or Ca(OH)₂. Each treatment was replicated four times and arranged in split-plot in randomized complete block design with soil type as the main plot.

Table 1

Chemical Properties of Barotac Loam and Sta. Rita Clay Loam Soils.

Chemical property	Barotac loam	Sta. Rita clay loam
pH (1:1) soil-water ratio)	4.9	6.9
Organic matter (%)	1.48	2.57
Exch. potassium (m.e./100gm)	0.63	1.26
Available phosphorus (ppm)	0.43	2.19
Total nitrogen (%)	0.12	0.19
CEC (m.e./100 gm)	12.57	30.50
Hydrogen saturation (%)	62.40	23.00

The seedlings were thinned to ten per pot two weeks after germination and allowed to grow for a period of 60 days. The data obtained per pot at the end of the experiment were: (1) plant height from five tallest plants, (2) number and weight of nodules, (3) weight of shoots, and (4) soil pH and exchangeable hydrogen. All weights were made on the HS Mettler analytical balance and the pH's were measured with the Corning pH meter Model No. 7. All data were statistically analyzed using the analysis of variance and treatment means were compared using the Duncan's Multiple Range test.

RESULTS AND DISCUSSIONS

Changes in pH of the soil. The adjusted soil pH's for both soil types were not maintained throughout the duration of the experiment. The initial difference of 1.0 pH unit between two successive pH treatments decreased from 0.3 to 0.5 units in Barotac loam soil and from 0.2 to 0.7 units in Sta. Rita clay loam from 5.7 to 7.0 instead of the original pH 3.5 to 6.5. Despite the changes in pH, there was no alteration in the order of increasing acidity, i. e., the originally more acid treatments remained acid at the end

Table 2
Soil pH and Exchangeable Hydrogen at
60 Days after Adjustment of Soil pH

Initial pH	Barotac Loam		Sta. Rita Clay Loam	
	pH*	Exch. H	pH*	Exch. H
	m.e./100gm		m.e./100 gm	
3.5	4.9	8.8	5.7	3.7
4.5	5.2	4.1	5.9	3.0
5.5	5.7	3.3	6.3	2.5
6.5	6.2	2.5	7.0	2.0

* pH at 60 days.

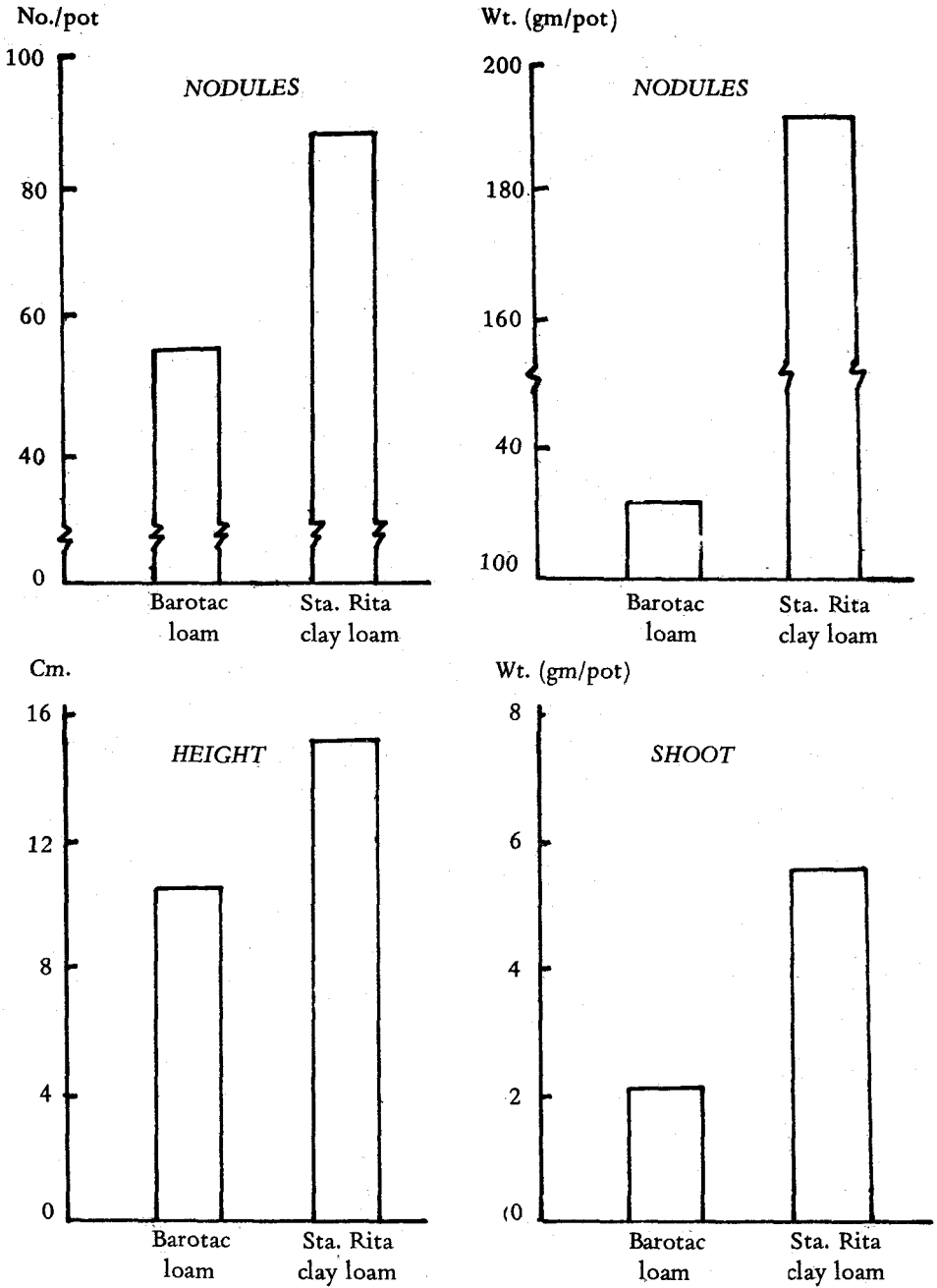


Fig. 1. The Agronomic Characteristics of Ipil-ipil (*Leucaena leucocephala*) Seedlings Grown in Barotac Loam and Sta. Rita Clay Loam Soils at Sixty Days of Growth.

of the experiment. This fact is supported by the amount of exchangeable hydrogen which decreased at increasing pH in both soil types. These data are shown in Table 2. It was further observed that for a given pH, the amount of exchangeable hydrogen was higher in Barotac loam than Sta. Rita clay loam soil.

Unless specified, the succeeding discussions will make reference to the original values of the pH treatments instead of the final pH for convenience in the presentation of the results.

Growth characteristics under two soil types. The differences in various growth characteristics of ipil-ipil seedlings planted in Barotac loam and Sta. Rita clay loam soils are graphed in Figure 1. The average height of plants at 45 days after sowing was 10.4 cm. in Sta. Rita clay loam and 7.6 cm. in Barotac loam soils. This increased to 13.9 and 10.8 cm. respectively, at 60 days of growth.

Ipil-ipil grown in Sta. Rita clay loam soil produced more dry matter than those planted in Barotac loam soil. The total shoot weight in the former was 5.5 gm. while the

latter had 2.1 gm. per pot. The weight and number of nodules per pot in Sta. Rita clay loam was 192.8 and 90.0 mgm, respectively. On the other hand, there were 57.3 nodules found in Barotac loam soil, all weighing 111.9 mgm. The above observed characteristics were all significantly lower in Barotac loam than Sta. Rita clay loam soils.

The results show that the more fertile and less acidic Sta. Rita clay loam soil provided better growing medium for ipil-ipil than the more acidic Barotac loam soil. Better growth of ipil-ipil in Barotac loam may be obtained by liming the soil.

Influence of soil pH on agronomic characteristics. The data are presented in Table. 3. The results show that plants grown under high pH were taller than those planted in more acidic conditions. The corresponding heights at decreasing pH treatments from 6.5 to 3.5 were 14.3, 12.7, 11.7, and 10.2 centimeters.

The total dry matter weight was heaviest at treatment pH 6.5. This decreased at increasing acidity and was lowest at treatment pH 3.5. Increasing the pH increased the number and weight of nodules in the

roots of ipil-ipil seedlings. At treatment pH 6.5, there were 97.4 nodules; at pH 5.5; 71.0; at pH 4.5, 63.9; and at pH 3.5, 56.2 nodules. In the same order of pH treatments, the corresponding weight of the nodules were 206.2, 151.2, 133.4, and 118.8 milligrams. The nodules were not examined whether they were effective or non-effective, but the data implied that nodulation in ipil-ipil could be adversely affected by low soil pH.

The relationship between nodulation and soil pH is illustrated in Figures 2 and 3. The abscissa values represent the final pH of the two soil types. For Barotac soil, the relationship is curvilinear; for Sta. Rita clay loam, it is linear. It is noted from the figure that the number and weight of nodules decreased even at pH as high as pH 5.0. Generally at pH higher than 5.5, nodulation appears to be a linear function of soil pH.

Table 3
Agronomic Characteristics of Ipil-ipil (*Leucaena leucocephala*) as Influenced by Soil pH

Initial pH	Height 60 days cm	Number of nodules no./pot	Weight of nodules mgm/pot	Weight of shoot gm/pot
3.5	10.2 c	56.2. b	118.8 b	2.8 c
4.5	11.7 b	63.9 b	133.4 b	3.7 b
5.5	12.5 b	71.0 b	151.2 b	3.9 b
6.5	14.3 a	97.4 a	206.2 a	4.8 a

Treatment means followed by the same letter are not significantly different from each other at the 5 per cent level of probability.

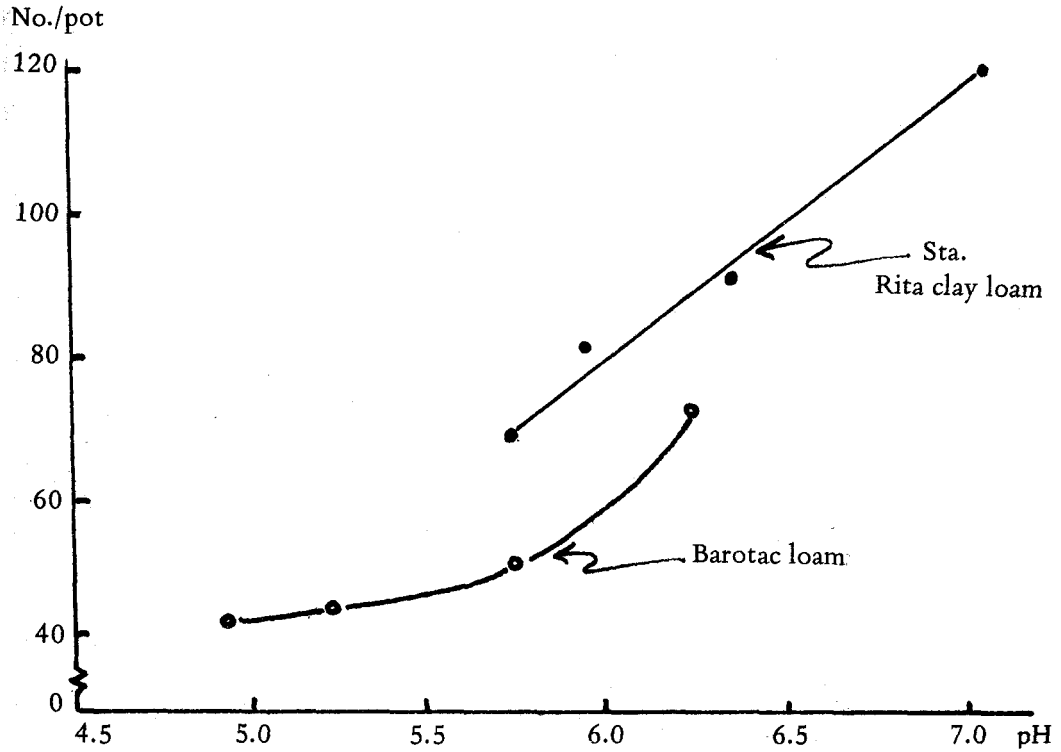


Fig. 2. The Relationship between Soil pH and the Number of Nodules of Ipil-ipil Seedlings Grown in Two Soil Types.

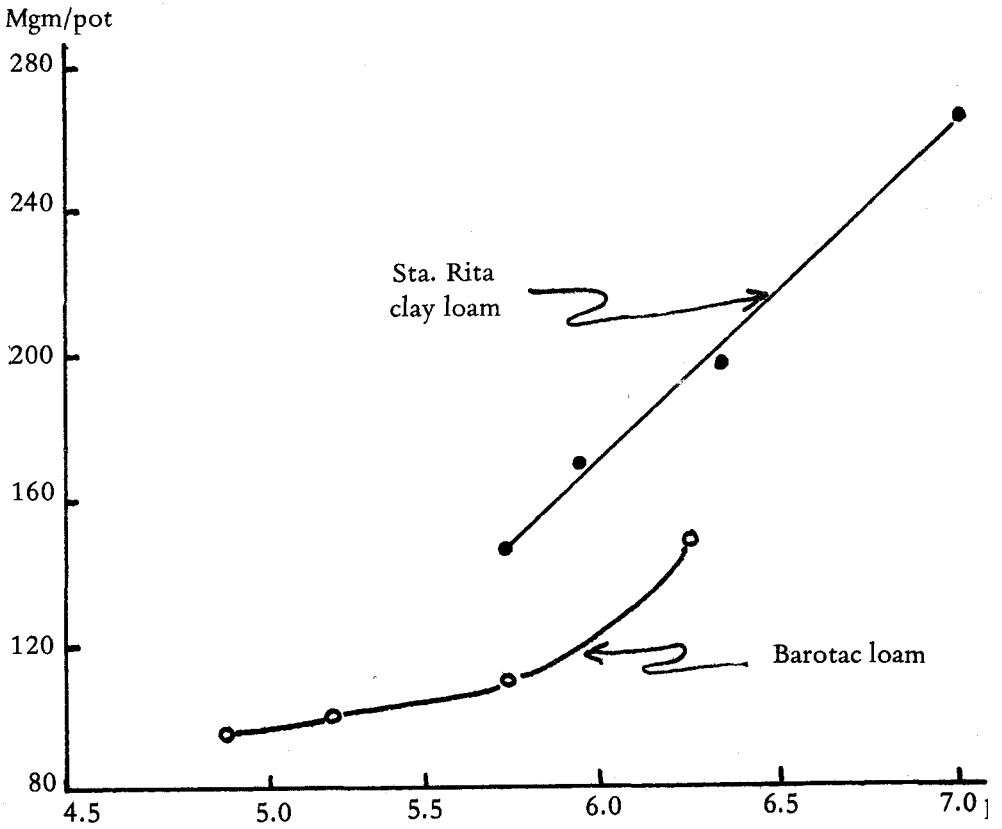


Fig. 3. The Relationship between Soil pH and the Weight of Nodules Ipil-ipil Seedlings Grown in Two Soil Types.

Statistical analyses of height, number and weight of nodules, and weight of shoot showed that treatment of pH 6.5 was significantly higher than all the other pH treatments. Except for the number and weight of nodules where there were no significant differences among pH treatments lower than pH 6.5, the treatment pH 3.5 was significantly lower than pH 4.5 and 5.5 for plant height and weight of dry matter of ipil-ipil seedlings.

SUMMARY

The height, dry matter, and weight and number of nodules of ipil-ipil seedlings were significantly higher at the highest soil pH than the lower pH treatments studied. These agronomic characteristics were also significantly higher in Sta. Rita clay loam (pH 6.9) than in Barotac loam (pH 4.9) soils.

Nodulation was adversely affected at pH below 5.5. At pH higher than 5.5, it appeared to be a linear function of pH.

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A Study of Expectations of Teachers and Perceptions of Administrators in Decision-Making in the Agricultural, Agricultural-Industrial, and Fisheries Schools in the Province of Iloilo*

Humberto T. Montaño

On the assumption that decision-making, as a vital element in educational administration, directly affects the effectiveness of the school as an organization in the productive realization of goals, a survey concerning it was made among 181 teachers and ten administrators in the eight agricultural, agricultural-industrial, and fisheries schools in the province of Iloilo. The objective of the study was to compare two types of data: (1) the expectations of the teachers from the decisions of the administrators, and (2) the perceptions of the administrators of the administrator's role in decision-making. Some subsidiary problems were also studied. These were the relatedness of the teachers' expectations with their own observa-

tions; and the relatedness of the five factors of sex, teaching experience, teaching assignment, college preparation, and the kind of school, first with the expectations of the teachers and then with the opinions of the administrators, concerning decision-making.

Data were collected using two sets of questionnaires: one for the teachers and another for the administrators, each consisting of sixty items. Parallel items in both questionnaires were correspondingly constructed so as to elicit appropriate response on the same idea.

The investigator himself administered the distribution and collection of the questionnaires. Ninety-eight per cent of the teachers and

*Abstract of a master's thesis done at Central Philippine University, 1973.

all of the administrators returned their questionnaires duly accomplished.

Since frequency data were involved, the chi square was used to determine the significance of the findings. It was determined beforehand that only a chi-square value at the 5 per cent level, with one degree of freedom, would be considered significant.

Significant findings in the survey were as follows:

1. In fourteen items, the expectations of the teachers were not borne out by observable practice in their schools.

2. Sex, among the primary variables, was the most related with expectations in that relatedness was indicated in five items. Teaching experience and kind of school, with one item each indicating relatedness, were the least related with expectations.

3. There was disagreement among the administrators on how to treat twenty instances requiring decisions.

4. Teachers' expectations and administrators' perceptions coincided in thirty-nine items. The teachers agreed among themselves and the administrators could not reach agreement, and vice versa, in fifteen

items. The teachers and the administrators could not agree, within their respective groups, in six items. There was no instance when the teachers agreed and the administrator disagreed, and vice versa.

The following recommendations were made with regard to the results of the survey:

1. The items in which there were "dissimilarity" and "incongruency" between teachers' expectations and administrators' perceptions should be taken up and clarified during professional meetings of the faculty and other in-service education activities in order to prevent deterioration of existing conditions.

2. To get desirable results from educational administration, administrators should employ participative and consultative decision-making procedures. With the teachers and the students becoming very militant groups—conscious and jealous of their rights and prerogatives—the administrators may be spared many embarrassing situation and unpleasant moments by involving all those concerned when making decisions that will affect them.

3. With school administration becoming a heavy and burdensome task in view of the many social and economic factors which constantly affect the schools, it would be well

(Continued on page 44)

A Follow-up Study of the Engineering Graduates of Central Philippine University from 1949 to 1970 *

Nelson L. Chow

This follow-up study, the first ever made of the graduates of the College of Engineering, Central Philippine University, has the following purposes: to gather information on the employment circumstances and activities of the graduates; to ascertain their attitudes toward the engineering profession; and to find out how adequately they felt they were prepared for the jobs they have held since graduation. Suggestions to how to improve instructional services and facilities of the College of Engineering were also solicited.

It is hoped that the data gathered will be used by vocational counselors in helping prospective college students who contemplate entering the engineering profession. Furthermore, the study may serve as guide

worthy of consideration by the school administration in the improvement of engineering education at Central Philippine University.

This study intended to include the 283 graduates who received the engineering bachelor's degree from Central Philippine University between 1949 and 1970. However, mailing addresses of only 226 were gathered and this number of graduates served as the population of this follow-up study. A questionnaire, prepared by the researcher and validated by expert opinions, was sent to each of the 226 graduates. The questionnaire was made up of five sections. The first section asked for a few items of general information, for identification and location purposes, The second section asked for information regarding

* Abstract of a master's thesis done at Central Philippine University, 1973.

educational background. The third major information solicited by the questionnaire included employment history and data on work experiences. General attitude and opinions regarding the engineering career were elicited in the fourth section. In the final section, the graduate were asked to evaluate the kind of training they had received and to offer suggestions and recommendations for improving such training.

The data of this study show that (1) 30 per cent of the graduates had pursued further studies or attended special training classes after completing their undergraduate work at Central Philippine University, (2) 69 per cent had taken the board examination for licensing professional engineering in the Philippines and 65 per cent of them passed it, (3) 46 per cent of the graduates had been licensed by the Philippine Government to practice as professional engineers, (4) 95 per cent had employment experience and 11 per cent of them were employed outside of the Philippines, (5) 13 per cent of them had at one time or another after graduation from Central Philippine University requested faculty or staff of the school to help them in securing employment,

(6) the largest percentage, 41 per cent, of the graduates were employed as technicians, (7) the median salary bracket of employed graduates in the Philippines was ₱351 to ₱500 per month, (8) 84 per cent of the employed graduates were highly or reasonably satisfied with their jobs, (9) almost all of the graduates expressed favorable reactions toward choice of engineering as career for female students, (10) 82 per cent would still choose to study engineering if they were to start college work all over, and (11) majority of the graduates gave favorable response in evaluating their undergraduate preparation and training at Central Philippine University.

The data further show that (1) the higher one's job position, the more favorable is his evaluation of his college preparation, and vice-versa, (2) the more one is satisfied with his job, the more favorable is his evaluation of college preparation, and vice-versa, (3) one's feeling toward his job does not affect his decision to choose engineering as a major if given a chance to start college all over, and (4) the higher one's position, the more favorable is his feeling toward his job, and vice-versa.

(Continued on page 44)

A Study of the Iloilo Public Elementary School Teachers' Morale in Relation to the Different Administrative Styles at the Point of Measurement *

Julieta M. Pariñal

This is a study conducted by one of the two members of a team working on separate problems involving teacher morale. The objective of this study was to:

1. Determine, if any, the agreement of the administrators' self-evaluation with their respective teachers' judgments as to the administrative styles used by the administrators.

2. Identify the prevalent administrative leadership style of the public elementary school administrators in the first and fourth congressional districts in the province of Iloilo.

3. Ascertain the type of administrative leadership styles used by the school administrators in relation to the different major elements of the administrative process and the interpersonal relationship.

4. Find out the relation of the Iloilo Public Elementary School teachers' morale to the different administrative styles used by the public elementary school administrators.

The investigator used the normative survey in determining the typical administrative leadership practices. The sample administrators were 115 public elementary school head teachers and principals. From each of the 115 participating schools, the majority of the teachers was determined to judge the administrative styles used by the 115 administrators. A total of 680 teachers constituted the sample: forty-six teachers were under the autocratic administrators; 596 teachers were under the democratic, and thirty-eight were under the laissez-faire.

The leadership behavior traits and administrative practices of administrators were listed in the preliminary survey questionnaire to be evaluated by the professors. The same traits and practices were used in Section II of the questionnaires for the administrators and the teachers. The two survey instruments for this study and the questionnaire prepared by the other member of the team were distributed personally to each of the respondents. The majority of the teachers under one administrator was used to judge the administrative style of that administrator. The responses of the majority of the teachers to the anchor item were made the basis for determining the number of autocratic, democratic, or laissez-faire administrators.

Chi square at the 5 per cent level was used to test the significance of the divergence of the administrators' self-evaluation and the teachers' judgment of the administrative style of the school administrators. Analysis of variance was used to determine the significance of the mean differences of the morale scores. An Inter-class Correlation was computed for a factor whose mean was significant, in order to discover how much of the variances in morale is due to the factor yielding the highest mean.

This study revealed that:

1. There is an agreement of the administrators' self-evaluation with their teachers' judgment as to the type of administrative style used by the administrator.

2. The prevalent administrative style of the school administrators in the first and fourth congressional districts was decidedly democratic. There were nine autocratic administrators, ninety-eight democratic, and six laissez-faire.

3. Democratic leadership style was used by the school administrators in relation to the elements of the administrative process and the interpersonal relationship.

4. The morale of the public elementary grade teachers in two congressional districts involved in the study is not associated with the administrators' administrative leadership styles. The morale of the teachers as a group under the democratic administrators is not higher than the morale of teachers under either of the two types of administrators. Morale as measured in terms of the composite of the six factors is not associated with the administrative styles; however, it is associated with interpersonal relationship.

On the basis of the findings of this investigation under the conditions in which it was conducted,

the following conclusions were arrived at:

1. There was a high agreement of the administrators' self-evaluation with their teachers' judgment as to the type of administrative style used by the administrators.

2. Democratic administrative leadership style was the prevalent style used by the public elementary school administrators in the first and fourth congressional districts of Iloilo.

3. Democratic administrative leadership style was used by the administrators in relation to the major elements of the administrative process and interpersonal relationship.

4. The morale of the public elementary grade teachers in two congressional districts involved in the study is not associated with the administrators' administrative leadership styles. The morale of the teachers as a group under the democratic administrators is not higher than the morale of teachers under either of the two types of administrators. Morale as measured in terms of the

composite of the six factors is not associated with the administrative styles; however, it is associated with interpersonal relationship.

As a result of this study, the following recommendations are presented:

1. Courses in human relationship be offered in colleges and universities for graduate as well as undergraduate students preparing for employment involving human interaction.

2. Seminars in interpersonal relationship and human interaction be provided both the teachers and the administrators in the field in order to develop and/or maintain teacher morale.

3. The school administrators should be transactional: he can be autocratic, democratic, or laissez-faire depending on the demands of the situation and the personality needs of the teachers.

4. A similar study is hereby recommended to find out what factors, in the context of the Filipino culture, affect teacher morale aside from interpersonal relationship.

A Study of the Association between Organizational Climates and the Academic Achievement of Intermediate Pupils in Twenty Schools in Iloilo City *

Nilda S. Causing

The main purpose of this study was to discover the association between Organization Climates and the Academic Achievement of intermediate pupils in twenty schools in Iloilo City. Two types of schools were studied— ten schools from the Division of City Schools and ten Independent Schools. Answers to these questions were also sought:

1. How do the perceptions of teachers in two types of schools compare concerning the behavior of their respective principals and co-teachers as measured by the eight dimensions of the Organizational Climate Description Questionnaire (OCDQ)?

2. What type of organizational climates exist among the twenty schools studied as measured by the OCDQ?

3. Is there a relationship between these perceived behaviors and the achievement in the three subjects tested?

4. Is school climate as identified by the OCDQ associated with achievement in Arithmetic, Reading, and Language? What per cent of the variance is attributed to climate?

To have more confidence in the instruments, the OCDQ and the Philippine Achievement Test, Form III, were submitted to tests for validity and reliability. The OCDQ which had 240 items was found to be too long, and so steps had to be taken to shorten it, hopefully, without affecting its reliability. The OCDQ was submitted to twenty judges for Q-sorting and their evaluation underwent a test for agreements. The agreements for the items which were finally included in the

* Abstract of a doctoral dissertation done at Central Philippine University, 1973.

research version had no agreement ratio below .60. After these items were removed, there were more than twenty items left in every subscale. The Q-sorting of the items done by thirty elementary school teachers and thirty graduate school students were analyzed. Only those items with an r value of not less than .30 were included in the research version. The research version of the OCDQ had 120 items. When the scale was tested for reliability, the Coefficient Alpha of the eight subtests showed that there was no value below .65. For purposes of determining organizational climates in this research, the OCDQ was considered valid and reliable. The results showed that the "step-up" correlations of Arithmetic was .92; that of Reading, .95; and Language, .94. These reliability coefficients were comparable to those given by the Bureau of Public Schools for the same tests.

The OCDQ was administered to 365 teachers of the twenty schools. The mean of the weighted scores of the teachers in the scale became the institutional score in that scale. To identify the organizational climates, a typology was constructed based on the institutional scores of the schools on the negative and positive

scales of the OCDQ. Using the typology, five types of climates were identified — Controlled Climate, Open Climate, Closed Climate, Autonomous Climate, and Paternal Climate.

The Philippine Achievement Test, Form III, was administered to 1,673 pupils in order to test their academic achievement. The mean of each school, was considered the institutional score in the achievement test in the subjects tested.

The relationship between the achievement of pupils in each of the three subjects tested were compared with the perceptions of the teachers of the organizational behaviors of the principal as well as the other teachers. The organizational behaviors as perceived by the teachers in their own school were correlated with the achievement of their own intermediate pupils. This relationship was determined by using r correlations. Correlations below .44 (set by the r table of Garrett) were not considered high enough to establish significant relationships between behaviors and achievement.

In this research, none of the perception scores of any organizational behavior in so far as measured by the OCDQ correlated significantly with achievement scores in Arithmetic, Reading, and Language.

When the achievement of the five climate groups were compared for significant differences, the F ratio indicated that the achievement of the five groups had significant statistical differences.

The analysis of variances for Reading, Language, and Academic Achievement yielded F ratios which exceeded the critical value of 3.06, thus the null hypothesis, that the means of the five groups in these areas were equal, had to be rejected. Further analyses of these differences showed the following:

1. In Language, the means of schools belonging to the Controlled Climate were significantly superior to Autonomous Climate only and not to others. The mean differences between means of schools having Open and Autonomous Climates were high but not high enough to reach a level of significance.

2. In Reading, the mean of schools with Controlled Climate was superior to those of the Closed, Autonomous, and Paternal Climates but not over those with Open Climates.

3. In Academic Achievement, the schools with Controlled Climate did better academically than schools with Paternal Climate and Autonomous Climate but not those schools with Open Climate and Closed Climate.

In this research, the following percentages of the variances in achievement may be due to organizational climates:

21 per cent in Reading
 17 per cent in Language
 20 per cent in Academic
 Achievement

The following recommendations are suggested by the study:

1. School administrators in the institutions which have been studied should discuss with their teachers the weak points which they perceived in their organizations. It is further recommended that group discussions be conducted so that more teachers will be involved in the search for solutions to the problems which have been exposed by the study.

2. Superintendents and institutional heads should conduct a study similar to this one where the organizational climates are associated with achievement. The results may help point out those behaviors which are correlated with low achievement and thus help them to establish in-service training programs for the improvement of administrative as well as supervisory practices.

3. Principals of these twenty schools should make more observations and conduct interviews to ferret out those points which were

perceived by teachers as hindrance. Whatever is found should be used as a starting point for measures to improve conditions.

4. Principals of low-achieving schools should use the data of this study as points of departure to discuss sensitive matters which otherwise would be difficult since there would be no basis for bringing them out.

5. A study similar to this, made on the Division level by superintendents should enable them to choose principals to handle certain schools. This study should be one where the OCDQ is used in order to find out what actually exists in terms of interactive-social behaviors and a study on what conditions teachers think should really be. A comparison of scores on these two would be most helpful to a school superintendent who would want to improve his organization.

6. Further research of this nature should be conducted on a wide area to include schools of different types: for example, comparisons between Protestant and Catholic schools; purely girls' schools and co-educational schools; schools in both urban and rural areas and others. Studies of this nature will be most helpful to other researchers who may come after this study.

A Study of Expectations. . .

(Continued from page 35)

to conduct further studies in decision-making and other processes in educational administration in order to obtain valuable facts and data that may prove useful in running a school system satisfactorily.

4. A follow-up on values involved in decision-making be made, in order to obtain more information from teachers and administrator on this crucial aspect of educational administration.

A Follow-up Study. . .

(Continued from page 37)

The major recommendation presented for this study is that a vocational counseling service and a placement service ought to be incorporated into the guidance services of Central Philippine University at the earliest opportunity. It was also recommended that the Central Philippine University Alumni Office should maintain close contacts with all graduates. For this study to be more relevant, it was further recommended that the present data be compared with follow-up data gathered of graduates of other colleges of Central Philippine University and of engineering graduates of other schools, and with employment statistics of engineers on a national scale.

Observations on Accreditation in Canada, the United States and Japan *

Eliza U. Griño

This report on my observations and the results of my trip to Canada, the United States, and Japan includes:

1. a brief comparison of accreditation practices in these three countries;
2. a more detailed account of my observations in the United States where accreditation is a major concern of institutions;
3. recommendations for courses of action that are suggested by my observations.

Accreditation in Canada

There are two types of accreditation in Canada. Provincial accreditation has to do with evaluation of credits a student earns, to determine their transferability from institution to institution. Incidentally, graduates from our four-year colleges here are considered undergraduates in Canada.

Institutional accreditation (meaning, the accreditation of schools and not of student credits) is an idea which was borrowed from the United States, and seems to be the concern only of schools of higher learning. The accreditation of schools of medicine and social work is certainly a going concern. The Canadian Association of University Schools of Nursing, which is an associated member of the Association of Universities and Colleges of Canada, is presently considering the possibility of accrediting university schools of nursing. The colleges of medicine were once accredited through the American Medical Association. This international tie is still preserved.

As in the United States, accreditation is on voluntary basis, but institutions had better think twice before they dare disregard accreditation.

*Dr. Eliza U. Griño is Head of the English Department, Central Philippine University.

Accreditation in the United States

American accreditation grew out of the fact that there was nothing comparable to a ministry of education in the federal government at the beginning, and education was left largely in state hands. Furthermore, there were no standards set for the opening of schools; so the better schools banded together to promote quality education among themselves and those who would like to join them.

Eventually six regional agencies sprang up, and these worked independently of each other. Each had its own policies, procedures, machinery and forms. Under the setup it was possible for schools to "shop around" for accreditation.

The creation of a non-governmental body to coordinate the functioning of these six, at least in higher education, has helped bring about uniformity at least in policies to be followed. There is now an evident desire to bring the agencies closer together in practice.

At present, the lines of administration and/or supervision are clearly and definitely drawn. A school wanting to be accredited should first find out what regional agency has responsibility for schools

in its state. It is to that agency that it may apply for candidacy. In the course of making their agencies available to overseas schools with American students, the agencies eventually came to divide responsibility for these schools; thus, Western Association accredits schools in the Far East; Middle State Association accredits schools in France, etc.

The first thing evident among American regional agencies is the common preference for institutional accreditation. Program accreditation is done by professional agencies. Most often, professional agencies will not have anything to do with professional colleges whose mother institutions have not been previously accredited by some regional agency. Professional and specialized accrediting associations are coordinated and monitored by the National Commission on Accrediting.

Although American accreditation was originally concerned with higher education and the college-preparatory high school, current trends lead the regional agencies to be involved in the accrediting of vocational and elementary schools. All the institutions which may apply for candidacy must be non-profit

ones. Some court case is raising the issue of eventual accreditation for profit-making schools like some private business schools.¹

It seems that the decision to accredit whole institutions instead of individual divisions within a school is impelled by the desire to have an institution look at itself as a totality and give each of its divisions a "feel" for the state of affairs of other parts of the institution. The agencies would seek to avoid the fragmentation of the multi-division school, which consequence would happen if each division looks to an outside agency for leading first before it has considered its position in relation to its own sister divisions in the institution.

Practically all the officials of the schools that I visited declared that the greatest value of accreditation to them is the revelation of their strengths and weaknesses through the required self-study. To them, the fact that conscientious work

and constant improvement does win them accredited status is incidental.

What do accreditors look for in an institution? The answer to this may partly depend on whether one looks at a high school or a higher division. Relatively, high school criteria tend to be more quantified than college criteria. It also may depend on the values more than others. The recent trend, however, is away from quantification at all levels and toward looking for quite evident potential for good, and for laudable quality of attitudes, goals, and "performance" of institution, personnel, and clientele. Since, admittedly, quality is difficult to evaluate, much reliance is placed on the judgment of the trained evaluator

When I expressed the fear that what school personnel may consider as "adequate" an agency evaluator may not think so upon visitation, I was assured that this danger is minimized by safeguards like (1) the school's getting experts for counselors during their self-study; (2) the

¹At press time, the following advice arrived from the North Central Association of Colleges and Secondary Schools, through Dr. Norman Burns, director of the Commission on Institutions of Higher Education: "The constituent commissions of the Federation of Regional Accrediting Commissions here revised their eligibility requirements to eliminate the requirement that an institution be organized on a not-for-profit basis. They are not yet, however, accepting such applications since there is some uncertainty whether their tax exempt status might be threatened by including in their membership institutions which were organized for profit."

agency's sending down a counselor for a visit to advise a school doing its self-study; (3) the availability to both school and agency of professional literature on areas of concern like, say, the library.²

At present, agencies tend to vary in the number of evaluators that are sent to candidate schools, especially high schools. For example, given schools of average size, Western Association is likely to send no more than six; North Central or Middle States may send 20 – 25. As regards higher education, again evaluators sent to a school tend to be fewer in number than those sent to a high school. The near future may see this disparity corrected.

Agencies also vary in the period stipulated between evaluations. Some would like to re-examine accredited schools after five years; others, after ten years. All give conditional accreditation to schools which show pronounced weakness in some area but creditable quality in all others. Conditional accreditation simply means giving accredited

status for a short period during which the school is expected to improve in the area (s) where it was found weak, after which it is given full accreditation or it must show cause why accreditation should not be withdrawn.

For whatever good it may render the public, a list of accredited schools is published. Nothing is said about schools that do not make it. An accredited school which fails to maintain its standing upon re-evaluation is first given private warning. Failure to make good puts the school in danger of being given public warning, which seems to be in the form of a statement of its current status, in the listing of the agency.

In associations with responsibility for many states, evaluators for a school are usually taken from other states. At least they come from countries whose schools are not in competition with the candidate school.

²Concerning this problem, Dr. Burns comments: Despite the safeguards that have been set up, it is still highly likely that personnel engaged in institutional self-study may be more generous in their interpretation of adequacy than would be the visiting team. As a matter of fact, this frequently happens, and under such circumstances the judgment of the visiting team is more likely to be accepted by the accrediting association than the judgment expressed in the self-study report.

Since being accredited or not greatly affects not only a school's standing among its peers but also its ability to draw good teachers, many students, and outside aid, schools are quite touchy about the matter. It is to the credit of the concept and the management of the process that no more law suits have arisen in the history of American accreditation than have actually been filed.

In order to guard against such eventualities—which may ensnarl an agency and prevent it from reaching its objective of encouraging schools to improve—American agencies make it a point to ensure that every institution that feels it has been adversely affected have access to “due process of law” at every step in the procedure; i. e., it is given the chance to protest and be heard by a body of evaluators other than the original visiting team.

Also, most if not all the agencies see to it that any literature or document which they issue to the schools is legally defensible.

Another safeguard is to have the candidate school approve the membership in the visiting team before it is sent, and to replace anybody against whom the school puts up a valid objection.

Finally, the agencies are known to be helpful to schools who earnestly work for quality. Visits to schools are never punitive in spirit, and schools are advised about how to get ready when their time for a visit is due.

A protest, when pursued, can go up the hierarchy of administrators in the agency; the last resort is to appeal to the body which is composed of representatives from all the member schools. In a *voluntary* procedure like accreditation, no higher appeal can be raised beyond the desire of the represented peer group to welcome or exclude a candidate. So far, decisions thus handed down have been respected and abided by.

For their part, the executing staff of the agencies maintain the quality of their service (1) by reproducing literature that guides their evaluators as well as the candidate school; (2) by continuously looking for qualified evaluators; and (3) by holding training sessions for those to be sent out during the year. It may be well to note that the magnitude of the responsibility and the desire for accreditation are such that an agency is kept busy the whole year round.

Visiting teams are composed a year in advance. Those usually have a few new evaluators who work under the guidance of experienced evaluators. In this way the agency assures training for newcomers under actual field conditions without great fear that the quality of the work done suffers. The chance to work as evaluator (without pay) is held in such high regard that many more apply for it than the agencies can utilize within the year.

The chairmanship of a visiting team is a pivotal position. This is awarded only to those who, aside from having had experience in evaluating schools, have been found to have qualities for it. Potential chairmen are discovered (1) by earlier chairmen with whom they have worked, (2) by the quality of reports they themselves turn in, or (3) by the comments of fellow evaluators.

American agencies and their service to the schools are maintained by fees that member schools and candidate schools pay. The fees are predetermined according to size of student population or by level of division. However, when a school is visited, the school pays for the transportation, the accommodations, and the amenities accorded

the team. The practice of compensation for evaluators varies from one agency to another. In some they are paid honoraria in addition to expenses; in others, they receive expenses only.

Just recently the regional agencies for higher education have put up a coordinating body in Washington. This super-agency is now active in establishing commonalities among the regional agencies.

The federal office of education has an office for accreditation. This office supervises the accrediting agencies and, in a way, accredits the accrediting agencies themselves. In its functioning I have actually known it to be helpful to the accredited accrediting agencies. Probably my fear that it may enter a vicious circle in its functioning may not be probable. My fear was that, should all professional engaged in education become members of accredited institutions, the Office of Education, when it evaluates the many accrediting agencies it has to supervise, might be forced to invite as evaluators of *agencies* those who belong to the staff of some school which some agency must have accredited. Of course, luckily, regional

agencies are not competitive. It proliferation of programmatic accreditation continues, however, competition among agencies cannot be avoided. And thereby hangs the woeful tale.

Accreditation in Japan

The little information that I could personally gather from Tokyo raises issues of other dimensions which are laced with accreditation, especially in higher education. For schools comparable to our high schools, the problem is simpler in that there seems to be no effort to accredit these. In fact, an international school had to apply for accreditation with an American agency (as did some schools in the Philippines whose clientele hoped to pursue higher education overseas).

I was given the impression that accreditation as it is known in the American continent cannot thrive in Japanese-oriented education. The ministry of education in Japan has control over the school system, so accreditation may well mean government approval. If there is an accrediting body, it does not function in the same way that its American counterpart does.

Accreditation in Japan would seem to be a highly quantified sort. The president of the association

which is in charge of accreditation spoke of standards to be met by Japanese schools. I asked how much of them should be met before a school could be accredited. About 70%, he said.

Lessons Derived from the Visit

First, if we are trying to borrow the concept of American accreditation, we should realize that we are overlaying it on an educational system which, like Japan's, already has set standards for schools to meet before they are allowed to operate. If the government agencies for education are zealous in seeing to it that schools meet the quantifiable standards they set, then there is more reason to consider accreditation here as recognition of quality goals and quality performance in the achievement of those goals, as well as the provision of plant and personnel beyond the minimum required by government standards.

Second, part of the reason for proliferation of accrediting agencies in the States is simply magnitude—the vastness of the territory that must be covered. Even then, present agency officials are not happy about this development and would want to streamline the unwieldy growth if they had it to do all over again.

If a federation of accredited agencies is envisioned among us--a country hardly one-fiftieth of the United States--economy, an evident shortage in certain expertise, and the fewer number of professional schools would dictate that this federation take this form:

1. Extant school associations have institutional accrediting agencies for themselves.

2. The PAASCU take care of programmatic accreditation.

If institutional accrediting could be done by a more comprehensive agency, like one linked to the CO-COPEA, the proper maintenance of agency machinery could be better assured without necessarily sacrificing the peculiar interests of the member associations. (Regional associations in the States admit public and private, sectarian and nonsectarian schools.)

Third, it is essential to have a pool of trained evaluators with this essential requirement. If we all begin to train personnel now, there are not enough schools applying for accreditation at present to give adequate training to even a core group. And reading literature about accreditation procedures is not like undertaking the activity itself. It is difficult to conceive of what different men under different situations would think creditable or not. Literally, one has to see and

hear the thinking going on before a decision is firmed.

Appreciating our plight, the Federation of Regional Commissions of Higher Education (FRACHE) is interested in the possibility of helping train evaluators for us if some funding agency can send and maintain them while they go around with trained evaluators. These same trainees may then be invited to sit in decision-making sessions during which is determined whether candidate schools be accredited or not. When this possibility was discussed, it was felt that at least a semester of "field work" should be afforded the trainees. Even just this period can allow for intensive training because there is no lack for schools to be evaluated from October to May every year, in every region.

In order to make this training program attractive for funding, it is best to recommend a minimal group of potential chairmen. A group of six, two from each ACSC, CEAP, and PACU, should be a good number: one generalist from each, and three types of specialists, one contributed by each association. The most likely choices should be one for physical plant, one for library, and one for laboratory facilities. The other areas of concern could be taken care of by the generalists.

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