Faculty Perceptions of Ideal Teacher and Curriculum in Health Care Professions

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Abstract : *In curriculum development concept, the curriculum must be based on extensive assessment of both the need to be met (objectives) and the resources available to meet those needs. The successful facilitation of learning is dependent upon knowing the learner. The implication of this concepts is that a program of continuing professional education designed to improve curriculum development and instructional skill must begin by discovering the current concepts about curriculum and teaching. The objective of this paper is to answer whether the attitudes and beliefs of the health care professionals can be changed through continuing professional education.*

The instruments used is a Likert-type scale, consisting of 59 items, entitled "Status of medical and nursing school faculty and curriculum." The result of the perception is "yes" it can be change through continuing professional education. (Thai J Obstet Gynaecol 1990; 2: 43-58.)

Key words : ideal teacher, curriculum, health care professions

According to English and Kaufman[1], curriculum is means to and end; it is the "conscious and deliberate shaping of the major elements at the disposal of the educator to reach validated student objectives". As such, curriculum development (and the subsequent implementation of that curriculum) must be based on extensive assessment of both the needs to be met (objectives) and the resources available to meet those needs. Similarly, Roger[2] and Combs[3] state that the successful facilitation of learning is dependent upon knowing the learner.

One implication of above concepts is that a program of continuing professional education designed to improve curriculum development and

instructional skills must begin by discovering the current concepts which the participants hold about curriculum and teaching. Thus, the Regional Training Center at Chulalongkorn University has sought to develop and utilize an instrument which would assess the perceptions of medical and nursing faculty to the ideal curriculum and teacher for the training of health care professionals. Today, we want to share with you the description of those two important aspects of professional training as they have been described by participants in the Academic Skills Courses held at the Regional Training Center in Bangkok.

The Department of Obstetrics and Gynaecology of the Faculty of Medicine at Chulalongkorn University has played a significant role in the development of reproductive health services in Thailand. Through its regional training activities it has been an important influence on key leaders in reproductive health services in Asia. The Johns Hopkins Program for International Education in Gynaecology and Obstetrics (JHPIEGO) has assisted the Department by sponsoring the development of serveral courses in reproductive health and the training of key personnel in reproductive health from Thailand and other parts of Asia. Aspects of these courses have been absorbed into the regular curriculum of the Department in its training of physicians (both clinicians and academicians). JHPIEGO courses have grown to become a useful vehicle for constant up-dating of Department courses while fostering on-going development of reproductive health services.

Instrument

The instrument used in assess participants perceptions was entitled "Status of Medical and Nursing School Faculty and Curriculum." It is a Likert-type scale, consisting of 59 items divided into two parts. The first 28 items address perceptions of the ideal teacher while the remaining 31 items assess concepts about the curriculum. The response scale is 1-5, with 1 = "Strongly disagree" and 5 = "Agree very strongly". Participants also have available a "No idea" option. The instrument was developed for the Regional Training Center with the cooperation of the Medical Education Unit, Faculty of Medicine at Chulalongkorn University.

Reliability of the instrument was determined through calculation of both Cronbach's Alpha and the Spearman-Brown Split-half coefficient. For the Ideal Teacher Scale, Alpha = .82 and the Spearman-Brown r was .71. For the Ideal Curriculum Scale, Alpha = .92 and r = .94. According to Balian, reliabilities in the 80's are "good" and coefficients in the 70's are "useful"; thus it was concluded that the instrument had sufficient reliability to yield useable data.

Sub-scale factors for both the Teacher and Curriculum Scales have been identified and checked for reliability. Reliabilities across the 5

Teacher factors and the 6 Curriculum factors were satisfactory for all factors (r's ranging from .67 to .91) except the Cost Effectiveness factor of curriculum (alpha = .48), which is a three-item scale.

Subjects

The data reported here were obtained from 45 participants in the first three Academic Skills courses held at the Regional Training Center at Chulalongkorn University. Approximately half of the participants (N=25) came from Southeast Asia, 8 from the islands of the Pacific Oceania, 8 from countries on or bordering the Indian Sub-continent, and 3 from the Near-east. Among them were 8 administrators or head teachers, 14 Professors or instructors, and 23 residents and staff members. One-third (N=15) were female and the remaining 30 were male. In terms of their institutions, 15 were affiliated with a University or College, 20 with a Teaching Hospital, and the remaining 10 participants were associated with a variety of Institutions, including government agencies (N=2), Nurse Training Institutions (N=4), and Maternal and Child Health Centers (N=4). All participants had responsibilities in the training of physicians, nurses, or midwives.

Because of these views, the curriculum should be relevant and flexible, should involve affective content, and should utilize enriched teaching methods. High standards of performance should be maintained but they should not be externally established. And, finally, cost effectiveness should be neither ignored nor bought at the expense of quality.

Results

Data reported here was obtained when the instrument was administered as a pre-test during the first day of the courses. In general, the participants agreed with the items proposed by the questionnaire for describing the Ideal Teacher and Ideal Curriculum. The grand mean across the 28 items for the Ideal Teacher scale was 3.54; for Ideal Curriculum, the mean of the 31 items was 3.17. Thus, the level of agreement for both sections of the instrument was between "Agree" and "Strongly agree"; although agreement with the teacher items was slightly more than one-third level higher than agreement with the curriculum items.

There was considerable variance among the individual items, with a median standard deviation of 1.04 for Curriculum Scale items and .92 for the Teacher Scale items. Agreement levels for sub-scale factors are reported below, separately for the two scales.

The Ideal Teacher

Analysis of the Ideal Teacher scale yielded five factors, each of which addressed a function which the teacher performs. These five factors and their interpretation are as follows:

Manage Instruction : These 6 items assess the degree to which the teacher is a manager of instruction.

Facilitate Students : These 9 items deal with interpersonal relationships in the learning environment.

Meet Individual Needs : These 6 items look at the degree to which the teacher is responsive to abilities and needs of individual students.

Transmit Medical Information : These 4 items assess the teacher's commitment to transmission of detailed medical information.

Maintain Control : These 7 items examine the teacher's control of students and the learning processes.

Table 1 presents the mean level of agreement and the standard deviation for each of the factors. As indicated, the participants agreed strongly that the ideal teacher should be a manager of instruction (X = 4.06) and a facilitator of students (X = 3.90). They were very consistent in their agreement upon these factors, with the median item standard deviations for the two factors being .69 and .78 respectively.

Figures 1 and 2 present the items in each of the first two factors and the levels of agreement with each item. The item with which everybody agreed most highly was that the ideal teacher would have self-confidence in teaching (See Fig. 1). Among the items in this factor, the participants were least sure (X=3.4) that the ideal teacher would spend time and energy in trying to be a leader in the academic field.

Table 1 Factors for the ideal teacher

Name of factors	No. of Items	Factors		Mean Item SD
		Mean	SD	
Manage Instruction	6	4.06	.510	.69
Facilitate Students	9	3.90	.488	.78
Meet Individual Needs	6	3.56	.599	.97
Transmit Medical Information	4	3.44	.588	1.10
Maintain Control	7	2.76	.610	1.03
Total Ideal Teacher Scale	28	3.54		.92

Have self-confidence in teaching.

Evaluate self frequently and always try to improve his/her own teaching techniques and knowledge.

Identify learning problems and assist students in finding solutions.

Emphasize behavioral objectives, set learning experiences, and help students to be successful learners.

Allow students to exchange ideas about topics approved by the teacher.

Always try to acquire knowledge to be a leader in the academic field.

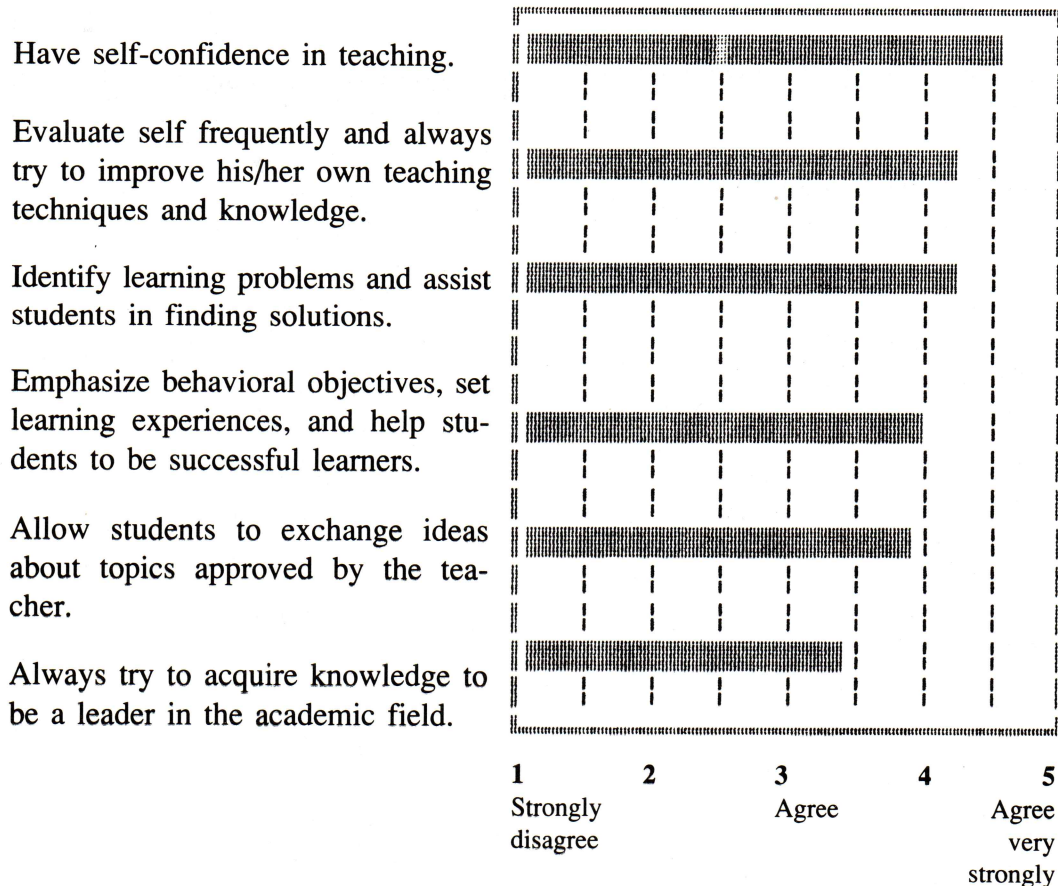| 1	2	3	4	5
Strongly disagree		Agree		Agree very strongly

Fig. 1 Levels of agreement with items in the manage instruction factor

The participants agreed strongly with all but one of the items in the Facilitate Students factor. (See Fig. 2) They disagreed with the item suggesting that one way to facilitate student was by the instructor's modeling of life as a physician or nurse ($X=2.5$).

Be trustworth, so the students feel free to open their minds.

Provide students with opportunities to express freely their ideas and viewpoints.

Set learning experiences that allow students to learn by discussing and asking questions.

Maintain good conscientiousness and morality.

Emphasize behavioral objectives, set learning experiences, and help students to be successful learners.

Be reliable and available to students in need.

Create faith and respect among the students.

Create admiration for and positive valuing of medical professionalism.
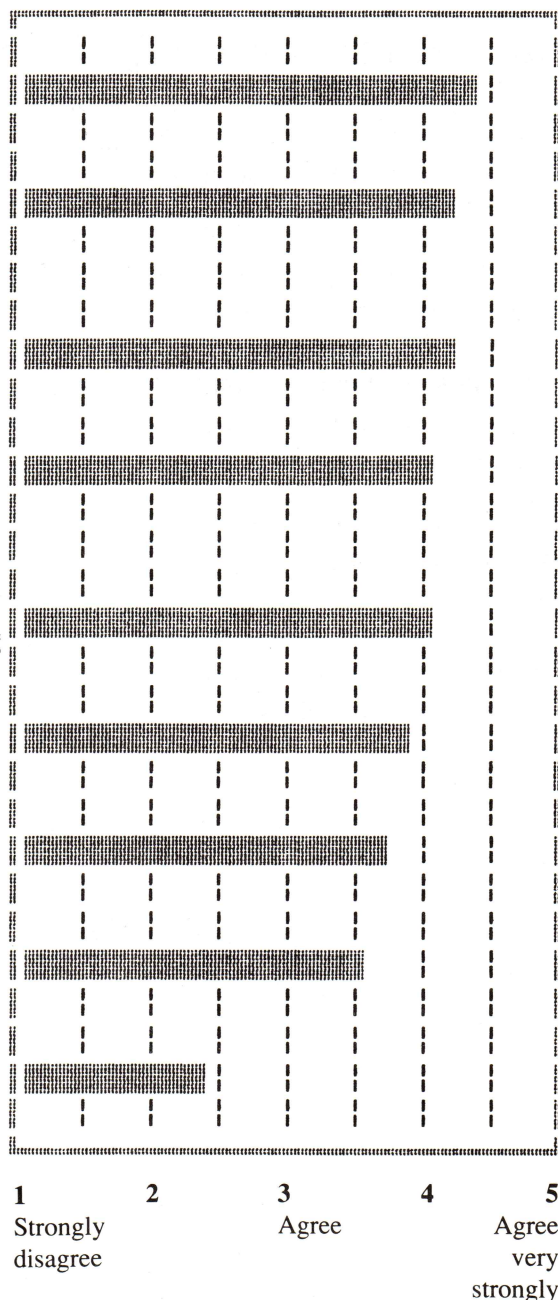
Model life as a physician or nurse.

1	2	3	4	5
Strongly disagree		Agree		Agree very strongly

Fig. 2 Levels of agreement with items in the facilitate students factor

There were moderate levels of agreement for the teacher's functions in meeting individual needs (X=3.56) and in transmitting medical information (X=3.44). As indicated by the high median item standard deviation, however, the participants differed greatly as to their beliefs about the value of the items in the latter factor (Transmit Medical Information).

Figure 3 displays the items and agreement levels for the third factor. The participants indicated that doing research for an academic position (X=2.9) and putting a great deal of stress on the details of every subject (X=2.5) were not helpful in meeting student's needs. On the other hand, they felt that in ideal teacher would take the student's needs, abilities, and problems into account in planning programs and cooperative learning activities to make sure that students attained the expected learning outcomes.
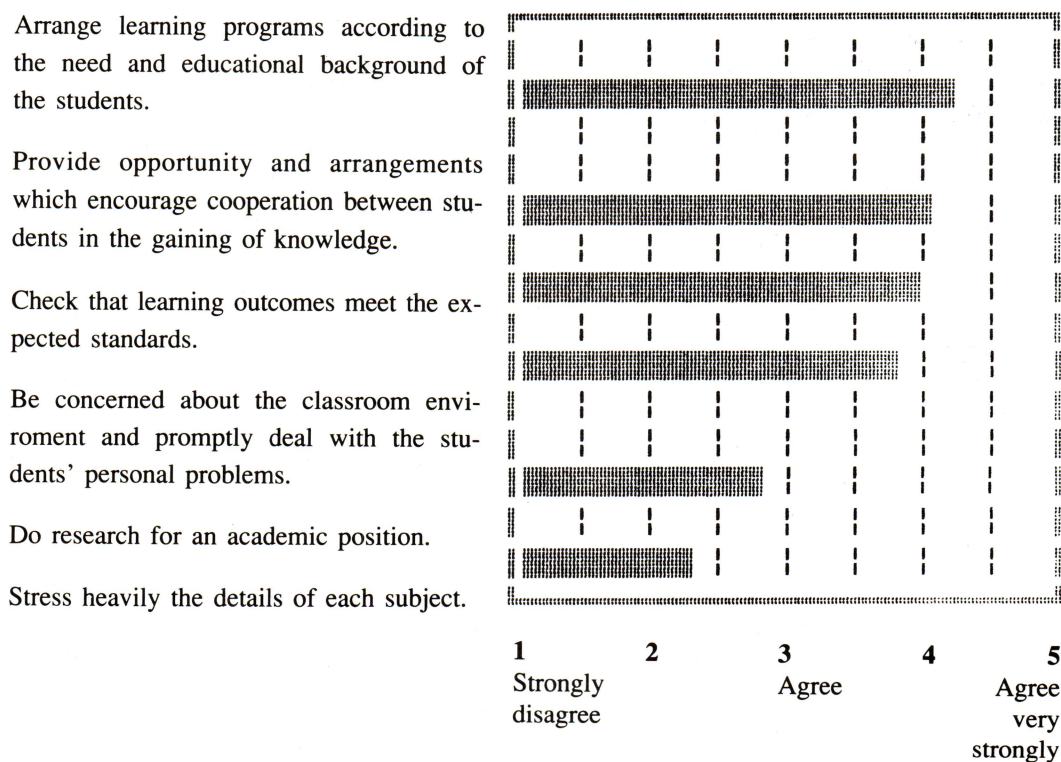
Arrange learning programs according to the need and educational background of the students.

Provide opportunity and arrangements which encourage cooperation between students in the gaining of knowledge.

Check that learning outcomes meet the expected standards.

Be concerned about the classroom enviroment and promptly deal with the students' personal problems.

Do research for an academic position.

Stress heavily the details of each subject.

1	2	3	4	5
Strongly disagree		Agree		Agree very strongly

Fig. 3 Levels of agreement with items in the meet individual needs factor

As indicated by the data in Fig. 4, the participants felt that the ideal teacher would pass on medical knowledge on behalf of the physician and nurse by being a good role model, being conscientious, exhibiting morality, and providing students with opportunities to integrate knowledge by discussing the subjects. They did not agree, however, that the transmission of medical information would be accomplished by heavy stress on the details of each subject (X=2.5).

The final factor, Maintain Control, is comprised of a set of items with which the participants agreed only moderately or which failed to attain a mean level of "Agree". These items have rating means that range from 1.95 to 3.4, with only three of the four items reaching the 3.0 level.

Provide students with opportunities to express freely their ideas and view points on each subject.

Maintain good conscientiousness and morality.

Pass on the medical knowledge on behalf of the physician or nurse.

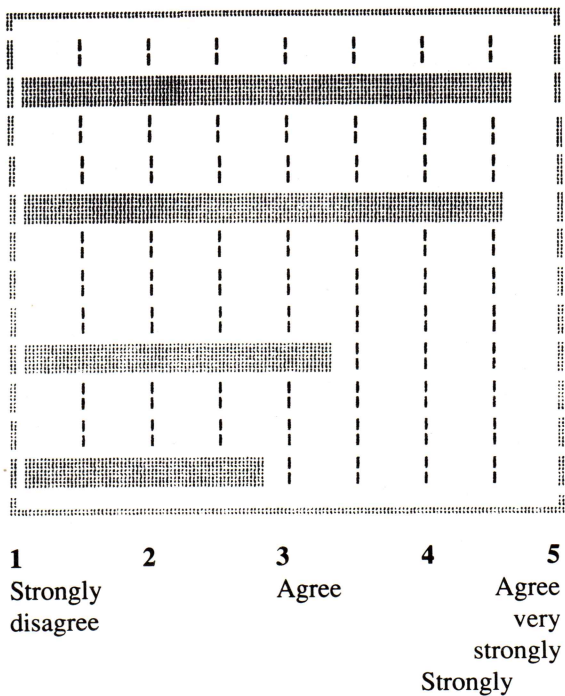Stress heavily the details of each subject.

| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | | Agree | | Agree very strongly Strongly |

Fig. 4 Levels of agreement with items in the transmit medical information factor

Perform duty as assigned.

Plan educational strategy based on his/ her own concepts and skills.

Arrange learning processess according to the teacher's curriculum.

Train students to acquire the skills and capability of a specialist.

Frequently use a written exam. to test students' knowledge and ability.

Immediately correct a student's idea which is different from the teacher's ideas.

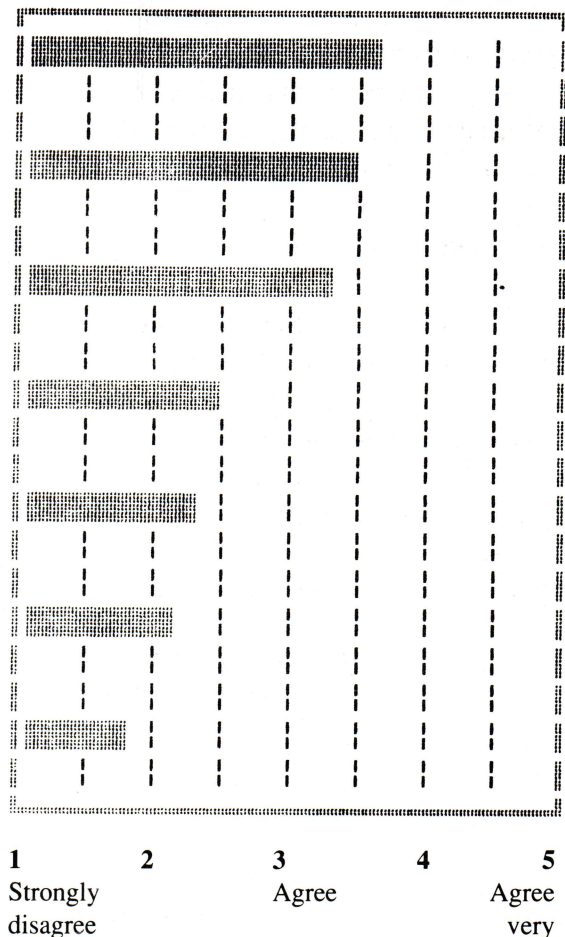Find ways of keep students from reacting to or objecting to the teacher's mistakes

1	2	3	4	5
Strongly disagree		Agree		Agree very

Fig. 5 Levels of agreement with items in the maintain control factor

In general, the participants indicate moderate agreement for the idea that the ideal teacher would be a conscientious teacher and take responsibility for arranging educational strategies and learning processes. How ever, the felt that the ideal teacher would not emphasize specialist training or the use of frequent written exam., nor would he/she be concerned with ensuring student agreement with the teacher's ideas. Finally, The ideal teacher would not worry about controlling student reactions to the tea-

cher's mistakes.

In summary, the participants believed that the ideal teacher is one who manages instruction in a manner which encourages student interaction and integration of knowledge and critical thinking about medical information rather than just wrote memory of details. Furthermore, in planning and implementing learning activities, the ideal teacher would take into account individual needs, abilities, and interpersonal processes in learning and motivation. Finally, the ideal teacher

would rely on good planning and adequate learning activities to ensure learning; coercion and criticism were not seen as acceptable mechanisms for the control of student behavior.

The Ideal Curriculum

Analysis of the Ideal Curriculum Scale yielded six factors, each of which represented a potential characteristic of a curriculum.

The six factors and their interpretation are as follows:

Relevant : These 6 items address the degree to which the curriculum is responsive to individual and social contexts of education in the health care professions.

Flexible : These 6 items assess the ability of the curriculum to be adaptive to individual needs, new technology, and changing aspects of society.

Enriched : These three items assess the degree to which the curriculum encourages the enrichment of instruction through use of Audio-Visual aids and new teaching technologies.

Affective : These 4 items address the affective aspects of the curriculum.

Cost Effective : These 3 items address the trade-off in the curriculum between costs and quality.

Standardized : These 9 items address the way the curriculum handles the establishment and maintenance of standards.

Table 2 presents the mean level of agreement and standard deviation of each of the above factors. As indicated in the table, the participants agreed very strongly that a curriculum should be relevant and flexible (X's of 3.61 and 3.60, respectively). They also felt that the curriculum should be enriched (X=3.30) and should deal with affective goals and concerns of students (X=3.27). They were less concerned with cost effectiveness (X=2.71) and standardization (X=2.64).

Table 2 Factors for the Ideal Curriculum

Name of factors	No. of Items	Factors		Mean Item SD
		Mean	SD	
Relevant	6	3.61	.82	.96
Flexible	6	3.60	.82	1.01
Supplemented enriched	3	3.30	.76	.98
Affective	4	3.27	.90	1.07
Cost effective	3	2.71	.94	1.09
Standardized	9	2.64	.77	1.12
Total Ideal Curriculum	31	3.17		1.04

Figure 6 displays levels of agreement for the items in the Relevent Factor. The first five items were strongly supported by the participants as being ways in which the ideal curriculum would be relevant for students. The ratings of the last item, with which the participants disagreed, affirms the need to be able to adjust the curriculum so that it can be relevant.

Helps students develop good attitudes and intentions to remedy the nation's health problems.

Helps students expand their knowledge and increase their abilities to learn and understand.

Produces medical school graduates that are able to cope with environment and situation.

Sets contents appropriate to educational level and study time.

Specifies scope and content of each subject in the curriculum so that it can be applied to daily life.

Requires structured subject matter and content learning experiences which are not flexible.
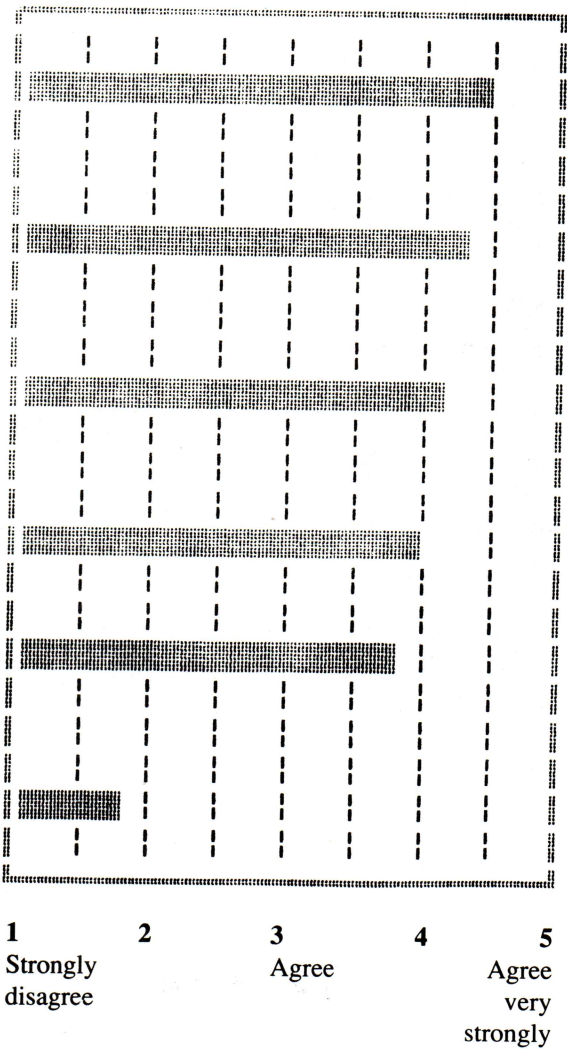
1	2	3	4	5
Strongly disagree		Agree		Agree very strongly

Fig. 6 Levels of agreement with items in the relevant factor

The flexible is similar in directionality to the relevant factor, however, it is more concerned with emerging processes in the curriculum rather than the relationship of the curriculum to its context. All items in the factor except one attained the "Agree" level. (See Fig.7).

Produces medical school graduates according to Health Needs.

Attempts to solve health problems by carefully studying social problems.

Adds new academic knowledge from new technology.

Arrange contents sequentially in relation to the educational level.

Provides for students to learn by practicing.

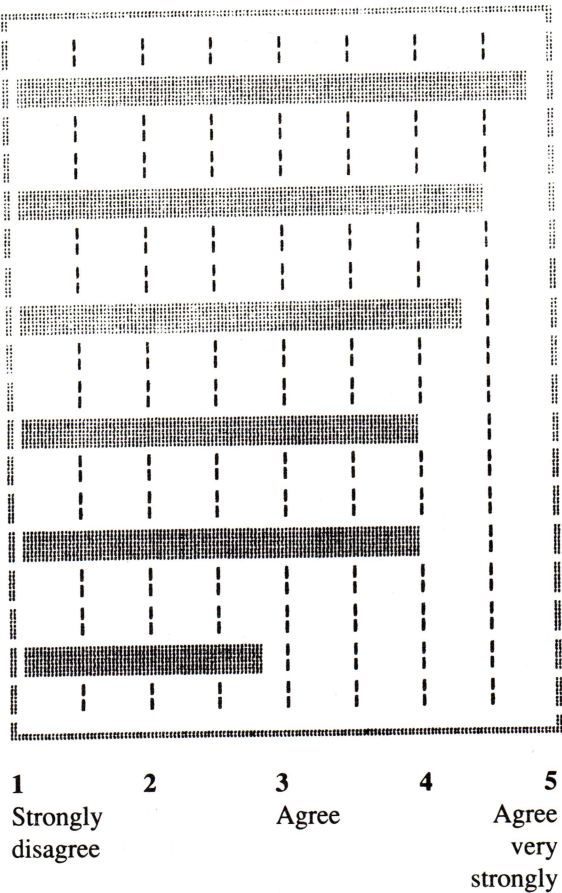Sets social values and desired behavioral changes according to the mental development of students.

1	2	3	4	5
Strongly disagree		Agree		Agree very strongly

Fig. 7 Levels of agreement with items in the flexible factor

As indicated by the levels of agreement in Fig.8, the participants felt strongly that a good curriculum would encourage the enrichment of instruction through the use of audio-visual aids and new teaching technologies.

There was considerable variance among the participants in their responses to the items in the Affective Factor (the median standard deviation for the items was 1.07 which is equivalent to one level), however, they did affirm the importance of this characteristic of the curriculum at a moderate level of agreement. The only item in the factor which fell below the 3.0 mean rating was the item regarding the extra expense of multidisciplinary learning (See Fig.9).

Occasionally provides teachers with information concerning new teaching method.

Occasionally uses audio-visual aids to increase learning effectiveness.

Disregards teaching aids when arranging the program of learning experiences.

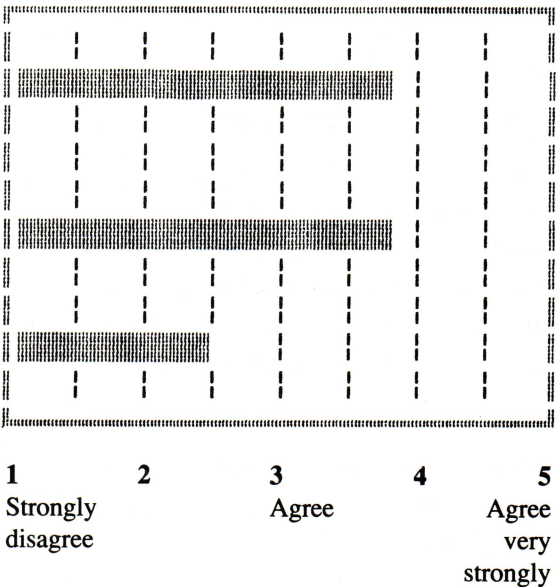| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | | Agree | | Agree very strongly |

Fig. 8 Levels of agreement with items in the enriched factor

Helps students learn to care for other people.

Requires diagnosis of the students's attitudes and their backgrounds.

Investigates needs and aims of students.

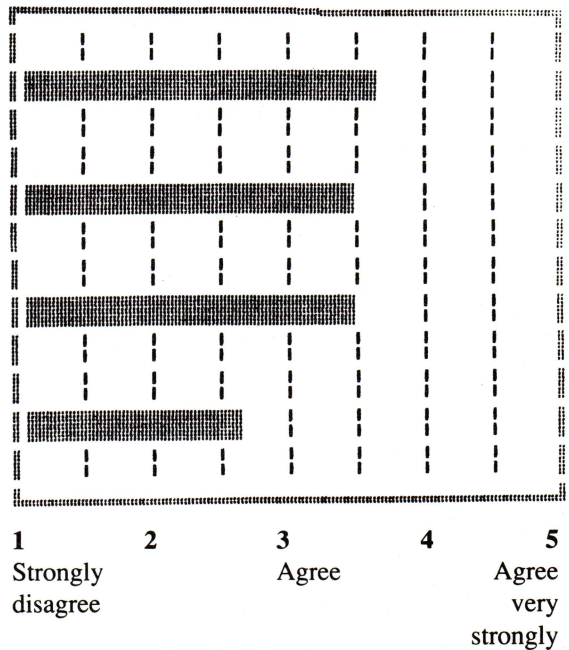Considers multidisciplinary learning to be worth the extra expense.

| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | | Agree | | Agree very strongly |

Fig. 9 Levels of agreement with items in the affective factor

As indicated in Fig.10, the participants fully disagreed with the idea that the curriculum should disregard cost effectiveness while producing medical graduates. They supported a curriculum which was not over-lapping or redundant and they felt that overemphasis on the details of subject matter was not cost-effective.

Delete similar or over-lapping content in order to save time, money, and energy.

Emphasize content details of each subject.

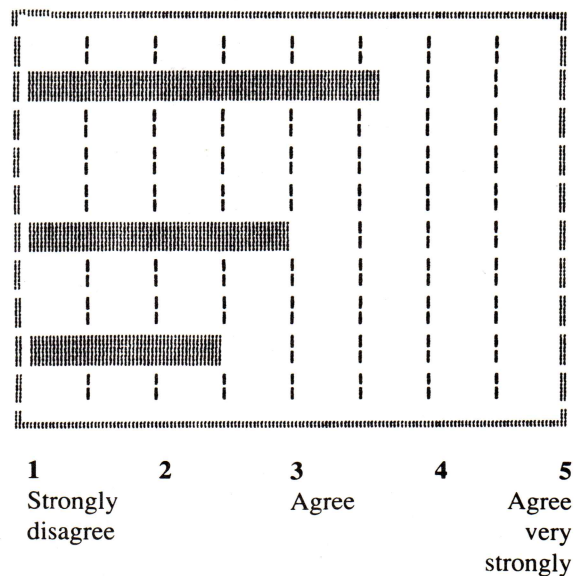Produce medical school graduates without regard for cost effectiveness

| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | | Agree | | Agree very strongly |

Fig. 10 Levels of agreement with items in the cost effective factor

The final factor dealt with the degree to which the curriculum is standardized. As shown in Fig.11, the participants felt that learning experiences should be provided according to the resources available to the teacher and student and that the basic knowl-edge and learning ability of the students should be more than a manor factor in curriculum decisions. They further indicated that externally-estab-lished standards were not compatible with the goals.

Provide learning experience according to the existing learning resource

Provide a content proportion to students per teacher in order to maintain a standardized graduates.

Sets educational objectives which are widely accepted among physicians and/or nurses.

Allows the medical specialist to set the objec-tives of his/her course.

Emphasizes development of each student to be a specialist in accord with his/her learning ability.

Arranges learning experiences to suit the skills and habits of the teacher.

Uses teacher with oversea experience to set standards for qualifications the medical/nurs-ing graduate must meet.

Prepares students to be specialists.

Considers the basic knowledge and learning ability of the students as a minor factor in curriculum decisions.
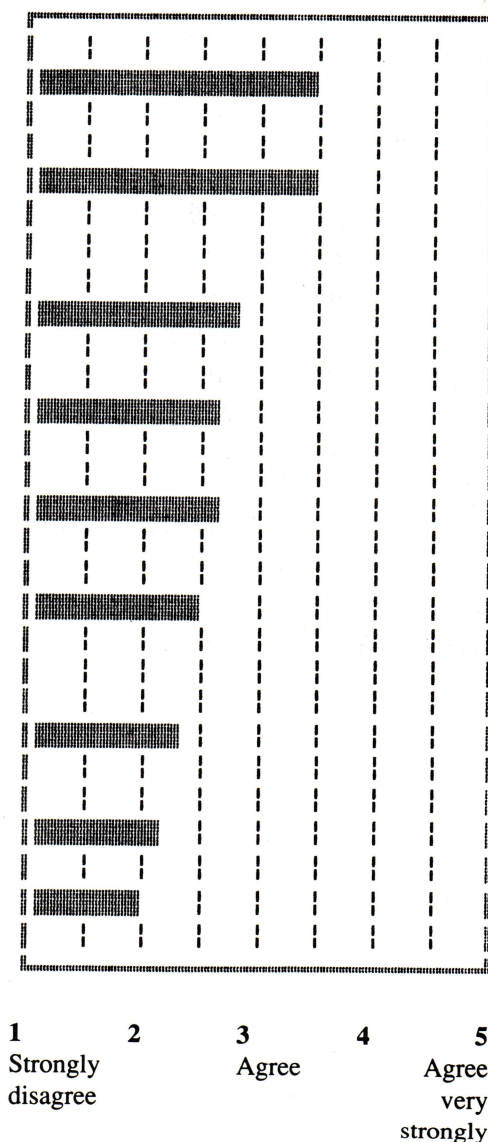

| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | | Agree | | Agree very strongly |

Fig. 11 Levels of agreement with items in the Standardized Factor

In summary, the participants view curriculum as a means to an end. And that end...that goal...is seen as a medical graduate who is caring of others, who is prepared and willing to address the Health Needs of the nation, who can cope with the environment and varying local situations and can engage in life-long learning.

Conclusion

Having described the attitudes and beliefs of the participants who are involved in the preparation of physicians and nurses regarding the ideal teacher and curriculum, the question naturally arises : Can these attitudes be changed through continuing professional education? This question was addressed by the Regional Training Center (and reported elsewhere) and the answer is "Yes". In the three-week course in Academic Skills, conducted by the Regional Training Center at Chulalongkorn University, significant pre- to post- training movement occurred in five of the 11 factors.

Furthermore, trends closely approximating significance occurred in two other factors. Significant movement occurred in the Ideal Teached factors of Facilitate Students and Meet Individual Needs and in three of the Ideal Curriculum factors: Standardized, Affective, and Cost Effective. In all cases, the movement was in the direction of the instruction which had been conducted during the workshop.

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