

## **Chapter 2**

### **REVIEW OF THE LITERATURE**

#### **Curriculum definitions**

Good (1959: 149) defines the curriculum in several definitions. First, it is a systematic group of courses or sequences of subjects required for graduation or certification in a major field of study. Second, it is a general over-all plan of the content of specific materials of instruction that the school should offer the student by way of qualifying him for graduation or certification or for entrance into a professional or a vocational field. Third, it is a group of course and planned experiences which a student has under the guidance of the school or college.

Saylor, Alexander and Lewis (1974:6) defines the curriculum as a plan for providing sets of learning opportunities for person to be educated.

Pratt (1980:4) defines curriculum as an organized set of formal educational and or training intentions.

Longstreet and Shane (1993:53) defines the curriculum as the result of the interaction of objectively developed plans for school study with the backgrounds, personalities, and capacities of students in a transactional environment created by teachers for the benefit of students as well as for the better implementation of the plan.

The implications of the above definitions showed that curriculum has been defined in various ways. Some define curriculum as the total efforts of the school to bring about desired outcomes in school and out-of school situations. Others exemplify the narrow conceptualization of the curriculum.

No matter what the curriculum is interpreted curriculum can be defined and covered the following descriptions;

1. The curriculum is the sum of planned content.
2. The curriculum is all the experiences under the schools direction that lead to learning.

### **Theoretical framework**

There are a variety of models applying for curriculum planning and design. How a curriculum is designed will depend upon what kind of a curriculum theory the planner is holding since the curriculum theory and curriculum design are inextricably related. Obviously, different theories produce different designs. However, no one curriculum design can be adequate for the total curriculum plan of a school serving a variety of students and multiple goals the school generally serve (Saylor & Alexander, 1974).

In this study Tyler's model, appeared in 1949 in his book *Basic Principles of Curriculum and Instruction*, is adapted. This model sometime is called "objective," "rational," or "mean-end" model (Grundy, 1987; Eisner, 1979). This model shows how to plan the curriculum by answering four key questions, namely: What educational purposes should the school seek to attain? How can learning experiences be selected which are likely to be useful in attaining these objectives? How can learning experiences be organized for effective instruction? How can the effectiveness of learning experiences be evaluated?.

The first step to be undertaken is what educational purposes should the school seek to attain?. This step concerns objectives which become the criteria by which

materials are selected, contents are formulated, educational procedures are developed and test and examinations are prepared (Tyler, 1949).

Efforts to formulate these educational purposes or objectives are very essential since all aspects of the educational purposes are really means to achieve basic educational purposes. Tyler presents the ways to attain these educational objectives by proposing several sources to obtain the above educational objectives. He considers that the following sources are very significant. They are learners themselves; contemporary society; and subject specialists. He regards these three sources as important and must be considered as he (1949:5) asserts:

“...no single source of importance is adequate to provide a basis for wise and comprehensive decisions about the objectives of the school. Each of these sources has certain values to comprehend it. Each source should be given some consideration in planning and comprehensive curriculum project”.

How to study the learners as a source to obtain the educational objectives? Tyler states that education is a process of changing the behavior pattern of the learners. The kinds of changes in behavior that an educational institution seeks to bring about in its students are very important to be studied thoroughly. He asserts that the study of the learners themselves will seek to identify needed changes in behavior patterns of the students which the educational institution should seek to produce.

According to Tyler's theory, student needs are very essential to be studied. However, needs are defined in a variety of ways. In the educational and psychological literature it tends to be defined in terms of a deficit, as discrepancy between an actual and an optimal state (Tyler, 1949). Stufflebeam, McCormick, Brinkerhoff and Nelson

(1985) hold this view and define a discrepancy need as a discrepancy between desired performance and observed or predicted performance. However, there is another view about needs called diagnostic view. Taba (1962) has given the priority to the diagnostic needs as a preliminary step in the curriculum development. Needs in this view are something whose absence or deficiency proves harmful (Stufflebeam; McCormick; Brinkerhoff & Nelson, 1985). Some call this need as basic needs which are those things or conditions without which the individual's state would be significantly less than satisfactory (Pratt, 1980).

Various curriculum writers refer to needs as a basis of curriculum planning and preliminary step in curriculum development. This is one of the main reasons that the study of the learner's needs has been increasingly recognized as a necessary part of the curriculum design. Sowell (1996) indicates that soon after curriculum developers initiate planning they may request a needs assessment to provide information for revising the existing curricular situations and they will also provide directions for their improvement.

The study of the learner's needs, a preliminary step in a curriculum development of Tyler model, will enable educational needs to be defined and priorities set and it is also a very valuable vehicle for bringing together parents, teachers and citizens to discuss alternative educational objectives (Marsh, 1992). However, the study of the learner's needs does not mean a curriculum which meets all different needs once as Pratt (1980) indicates that a curriculum that attempts to meet too many needs at once is unlikely to be effective. However, the study of the learner's needs is very worthy to

help curriculum developers to formulate goals, select curriculum contents and put priorities on contents.

The study of the learner's needs can be conducted in a variety of ways and it is flexible (Wiles & Bondi, 1989). Despite its flexibility, it needs to meet certain criteria and it must use fair, ethical and practical methods since it inquires into values and preferences of people holding different views of items under consideration.

Though the study of the learner's needs is very important as the first source to obtain the educational objectives suggested by Tyler, it is very difficult to study the needs of the learners in all aspects in a single research since the needs of the learners fall in any aspect of life as indicated by Tyler. In addition, not all needs of the learners can be stated as educational objectives. Only certain needs are formulated as educational objectives.

The study of the needs of the learners has to get these needs met in a way that satisfies the learners and provide them the kind of behavior pattern personally and socially.

Besides the study of the learner's needs, the situations in which they are in also proved very significant. The study of the contemporary life outside the school is important efforts towards formulating educational objectives. Since contemporary society is rapidly changing and very complex, not all expectations should be studied as Tyler states that expectations which are of importance today should be focused so that we do not waste our time to provide things for our students which are out of date. Thus, learning objectives offered to the learners are in line with outside school activities. On

the other words, if the school provides learning situation which are related to the outside school situations or life situations, the learners are able to apply things learned outside the school in school or vice versa.

However, using the sole study of contemporary life outside the school will be criticized as having several drawbacks. To avoid these defects, educational philosophy must be applied as a screen for deriving objectives.

There are several ways to study the contemporary society and sometimes data obtained are confusing. Therefore, aspects of contemporary life which are likely to have an implication for educational objectives should be studied thoroughly and it is necessary to divide contemporary life into various phases and narrow them down so that the investigation of these phases are not out of tract. How to study the contemporary society, Taba (1962:31-2) suggests that the study of the contemporary society which the educational program serves; what its problems, needs, requirements and what it demands of individuals living in it will be able to answer the following questions, namely:

1. What knowledge is most worthwhile?
2. Which skills must be mastered?
3. Which values are relevant?

Suggestions about objectives from subject specialists are another source of educational objectives. Tyler asserts that suggestions from subject specialists are a source from which educational objectives are derived. This source is commonly used. It seems that suggestions from subject specialists have become the sole basis for

developing the current curriculum for Islamic private schools undertaking nowadays by the Association of Islamic Private School.

The formulation of educational objectives by using mere suggestions from subject specialists has been criticized that they are too technical, specialized and inappropriate for a large number of school students. To avoid these defects, screen to filter the suggestions from subject specialists to formulate educational objectives is very significant. Tyler suggests that philosophy and psychology should be used as a screen to sieve off the important objectives. Taba (1962:195) supports this suggestion by stating that educational aims may be either narrow or comprehensive, balance or imbalance, depending on what is referred to as an educational philosophy.

Tyler (1949) is of the opinion that the objectives obtained from the three sources mentioned previously provide a lot of objectives more than the schools seek to incorporate in their educational programs. It is; therefore, very significant to select certain objectives which are essential and important and these objectives can actually be achieved in the time available. Tyler suggests that educational and social philosophy held by the schools should be the first screen for selecting objectives despite assembling all objectives suggested by three sources mentioned earlier.

The second screen suggested by Tyler is the use of psychology of learning in selecting the objectives. He indicates that educational objectives are educational ends. They are the results to be achieved from learning. Using psychology of learning in selecting these ends is very significant since the psychology of learning enables us to distinguish changes in human beings that can be expected to result from the learning

process. Psychology of learning will give us some ideas and the length of time these objectives need to be attained. In addition, psychology of learning enables us to decide the gradeplacement of particular objectives.

The second step of Tyler model is to answer the question “what educational experiences can be provided that are likely to attain the above mentioned purposes?” Tyler (1949:65-8) identifies that learning experiences vary with the kind of objectives aimed at. He proposes the principles for selecting the learning experiences as follows:

1. Learning experiences must provide opportunity for students to deal with the kind of content implied by the objectives.
2. Learning experiences must enable the student to obtain satisfaction from carrying out the kind of behavior implied by the objectives.
3. Learning experiences must be in the range of possibility for the students involved.
4. Many particular experiences that can be used to attain the same educational objectives.
5. The same learning experiences will usually bring about several outcomes.

“How can learning experiences be organized for effective instruction?” is the third question to be answered. In order for educational objectives to produce an effective outcome, learning experiences must be organized properly to reinforce each other. Tyler (1949:81) suggests three key criteria for organizing the group of learning experiences, namely, continuity, sequence and integration. He identifies that continuity refers to the vertical reiteration of a major curriculum element, while sequence is related

to continuity but goes beyond it and integration refers to the horizontal relationship of curriculum experiences.

The last question needed to be answered is “how can an effective learning experience be evaluated?” Evaluation is the process for determining the degree to which educational objectives are actually achieved through an educational program. On the other hand, evaluation is the process determining to what extent the changes in the behavior of the learners have taken place through educational objectives formulated.

Tyler (1949:106) states that the concept of evaluation has two important aspects. Firstly, evaluation is used to assess the behavior of the learners since education aims to produce certain desirable changes in the behavior of the learners and such changes are very much sought in education. Secondly, evaluation must involve more than a single appraisal at one time to identify whether changes have taken place. Therefore, it is inadequate to have a single appraisal in undertaking an educational evaluation. Frequency of valid and reliable evaluation is very essential.

As a conclusion, Tyler model of curriculum planning is the means-end model. His first key question is an effort towards formulating objectives. His second question is dealing with the selection of learning experiences. The third question concerns the organization of learning experiences. And the last question is about the effective evaluation, see figure 13.

Figure 13, Tyler's model of curriculum planning

What educational purposes should the school seek to attain?	→	Objectives
What educational experiences can be provided that are likely to attain these purposes	→	Selecting learning experiences
How can these educational experiences be effectively organized?	→	Organizing learning experiences
How can we determine whether these purposes are being attained?	→	Evaluation

Source: Tyler. (1949). *Basic principles of curriculum and instruction*. Chicago: University Chicago Press Center.

The most refined version of Tyler's procedure for developing a curriculum was outlined by Taba in 1962. She has proposed seven major steps of curriculum development as follow:

1. Diagnosis of needs
2. Formulation of objectives
3. Selection of content
4. Organization of content
5. Selection of learning experiences.
6. Organization of learning experiences

7. Determination of what to evaluate and the diagnosis of the ways and means of doing it.

“Diagnosis of needs” is very significant since the background of students vary in terms of gaps, deficiencies and variations. Diagnosis becomes an important first step in determining what the curriculum should be.

“Formulation of objectives” formulation of clear and comprehensive objectives provides an essential platform for the curriculum. These objectives determine what the content is. The content that is going to be formulated must help student to achieve the above objectives. In formulating of the educational objectives, information from various sources is essentially needed. Taba (1962) suggests various sources of data important for stating educational objectives. These sources are the learners, society and culture, learning process, and nature of knowledge. Taba (1962:200-205) has suggested criteria for formulating educational objectives as follows:

1. A statement of objectives should describe both the kind of behavior expected and the content or the content to which that behavior applies.
2. Complex objectives need to be stated analytically and specifically enough so that there is no doubt as to the kind of behavior expected.
3. Objectives should also be so formulated that there are clear distinctions among learning experiences required to attain different behaviors.
4. Objectives are developmental representing road to travel rather than terminal point.
5. Objectives should be realistic and should be included only what can be translated into curriculum and classroom experience.
6. The scope of objectives should be broad enough to encompass all types of outcome for which the school is responsible.

“Selection and organization of the content” involve criteria other than objectives, such as validity and significance and also consideration of continuities and sequences in learning and of variation in the capacity to learn

“Selection and organization of learning experiences” involve more than applying certain principles of learning.

“Determination of what to evaluate and of the ways and means of doing it.” Evaluation needs a proper and suitable planning. How should the quality of learning be evaluated? How can one assure that goals and objective are consistent? Does the curriculum organization provide experiences that offer optimum opportunities for all varieties of learning to attain independent goals?

Since this study is an attempt to answer the first key question of Tyler and cover two orders of Taba curriculum development model, Tyler's model is adapted for this study.

## **Delphi Technique**

### **Background**

Delphi is the name of the place in Greece where Apollo palace was situated. In ancient time, Greece people came to this palace to foresee the future (Sukhothai, 1994). Consistent with its origin, this technique has been used for the prediction and organization of the army rather than other purposes. Delphi technique was developed in California in 1950's. The name for the technique was suggested by philosopher, Abraham Kaplan after Delphic Oracle (Henson,1980). Henson (1980) stated that the

earlier studies used Delphi in its traditional manner as a forecasting technique. Since then this technique and its application had been evaluated both with respect to how it applied and to what it is applied. Delphi technique has been used systematically by American Army in 1952. In 1962, ten years kept in secret that technique was revealed and in 1964 this technique was developed by T. Gordon and Olaf Helmer at the Rand Corporation (Martino, 1975). At the beginning the Delphi procedure will be used primarily in business and army, later on its technique has been modified to increase its application (Martino, 1975). Then, it has been used in areas such as national defense, transportation and education as being used in this study.

In Thailand, this technique has been applied for the last five to six years for the prediction of the future in stating the organization policy (Sukhothai, 1995).

### **Definitions**

Anderson (1975:121) has defined as the method of mobilizing of a group agreement to develop, improve and search for the reliability in predicting the future.

Natya (1973:139) has defined as the study of the expert opinions by bringing together the future expectation of persons who are expert in a certain specialization. Teanchai (1974:288) has defined as the method to determine the structure of communicative procedure between members in the group to bring together many opinions on complex issues; especially, issues on the future. Prayun (1970:51) has defined as the procedure of finding the consensus of members of the group about the

future in terms of time, quantitative needs by using questionnaires in stead of using direct meeting.

The above definition has been concluded that Delphi technique is the systematic method of bringing together the many points of view of experts on complex issues to reach a group consensus. This technique is suitable for the predictions of the future. Delberg, Van de Van, and Gustafson (1975:110-11) have identified five recognized uses of Delphi as follow:

1. To determine or develop a range of possible program alternative.
2. To explore or expose underlying assumptions or information leading to different judgment.
3. To seek out information which may generate a consensus on the part of the respondent group.
4. To correlate informed judgments on a topic spanning a wide range of disciplines.
5. To educate the respondent group as to the diverse interrelated aspects of the topic.

## **Procedures**

When a researcher had decided to apply Delphi techniques, two things need to be in his consideration. Firstly, the selection of experts. Failing to select the real experts, the findings will not be reliable. Secondly, designing a series of questionnaires since Delphi technique is an endeavor to bring together the experts' opinion on the issue concerned. Series of questionnaires distributed to each expert are very important. The simplest form of this technique requires the use of a group of experts on a particular issue of concern. The members of this group respond individually to a series of questionnaires and make individual estimates about the issue under study (Alvarado,1984). The procedure of Delphi has three general features, namely,

anonymity; Interaction and controlled feedback; and statistical group response (Stover & Theodore, 1978). The University of Sukhothai Thammathirat (1994) proposes that there are five general features of Delphi, namely, Anonymity; Interaction; controlled feedback; Statistical Group Response; and Expert consensus. Details are as follow:

1. Anonymity: All of the experts who participated in the study must be selected one by one and they have no opportunity to know each other so that each expert is able to express his opinion freely without any pressure. His opinion is individual and not influenced by other experts. This feature is a matter of minimizing the bias effects of dominant individuals, group pressure and irrelevant communication.
2. Interaction: The interaction of opinion among experts who do not know each other is emphasized in this feature. Usually, experts will respond to a series of questionnaires that have been done three or four rounds. There is a span of time between each round. In the first round, each expert will respond to questionnaire freely. Then all experts' responses will be summarized and shown in general feature and returned to each expert for the second round. For the third or the fourth round statistical summary is presented to each expert. Each expert is invited to reconsider his previous answers. This process will be repeated until consensus is obtained (Stove & Gordon, 1978).
3. Controlled feedback: This feature will emphasize on the neutral of feedback. Feedback between rounds must be carefully controlled by not allowing individual dominance or influence on others.

4. Statistical group response: Expert's responses will be analyzed by using statistical analysis. The presentation will emphasize on general feature rather than mean score thus statistics used in this feature are among median and interquartile and Frequency.
5. Expert consensus: This feature is the heart of Delphi technique. It is an effort to bring together many points of view of various experts to meet the group consensus. The group consensus is the aim of this technique. It is the agreement and consensus of experts who share their concern in a particular issue freely without any pressure and bias. Such consensus will be applicable to the solution seeking throughout the study (Stover&Theodore, 1978; Sukhothai, 1997).

All the above features are efforts to minimize the biased effects of dominant individuals, group pressure and irrelevant communications.

#### **Advantages of Delphi techniques**

1. Able to meet the expert's consensus though each expert does not know nor meet each other.
2. Expert's consensus has been reached without bias, group dominance and pressure.
3. Survey has been repeated, data obtained have been filtered.
4. Fast and effective.
5. Experts are able to express their ideas which are consistent with their specialization.
6. Appropriate to the future prediction.
7. Can be used effectively to bring together many points of view on complex issues to produce a group position that might otherwise be attainable.

**Limitations of Delphi technique**

- 1. Data reliability depends upon expertise, fail to select the real expert, findings will lose their reliability.
- 2. Survey has been repeated on the same experts. This repetition might make respondents bored.
- 3. Delphi is the technique of future prediction, loss of reliability findings will become loose expectation and ambition,
- 4. Few experts might not be able to complete all the Delphi procedure.
- 5. Lack of the opportunity for social emotional rewards.

*Figure 14, Panel size and error reduction*

Panel size	Error -reduction	Net - change
1 – 5	1.20 – 0.70	0.50
5 – 9	0.70 – 0.58	0.12
9 – 13	0.58 – 0.54	0.04
13 – 17	0.54 – 0.50	0.04
17 - 21	0.50 – 0.48	0.02
21 – 25	0.48 –0.46	0.02
25 -29	1.46 – 0.44	0.02

Source: California Junior College Association, 1971 as cited in Phaisarn,1987;  
MacMillan as cited in Kasaem,1979.

## **Local-based curriculum**

### **Definitions**

A local-based curriculum is defined as the provision of contents and experiences to learners in a specific location (The University of Sukhothai Thammarat, 1993:144).

Wichai (1982:3) defined a local-based curriculum as the modification of the national curriculum to suit ways of life of a certain locality and applicable to the real life.

The local-based curriculum is divided into three categories, namely, (a) the local-based curriculum developed by modifying the national curriculum; (b) the local-based curriculum which is a part of the national curriculum; and (c) the local-based curriculum which is specially designed for the implementation in a specific location. Wichai (1999) has included the last two curricula into one kind called the local-based curriculum that is a part of the national curriculum.

Sangad (1984) proposed the following procedure for developing a local-based curriculum.

1. Form the committee.
2. Study the basic information.
3. Study what kind of a local-based curriculum should be.
4. Study the national curriculum whether it was consistent with local situations.
5. Select or choose contents in national curriculum and study to what extent they suit local needs.

6. Evaluate the developed curriculum.

7. Remedy.

Neagley & Evans (1967) proposed that the development of the local-based curriculum needed the following tasks:

1. Adequate full time supervisory personnel.
2. District-wide curriculum committee.
3. Sufficient time.
4. Enough budget.
5. Effective coordination from district curricular council.

Phanorm (1993:34) proposed that the nature of the local-based curriculum should be as follow:

1. Should be the curriculum or syllabus penetrated in the curriculum structure of curriculum of elective subjects.
2. Its contents are consistent with the real needs of certain locality.
3. Its goals and contents are congruent with the real needs of students, parents, and community in a certain locality.
4. Its contents are suitable with the natural resource and development plan of a certain locality.
5. Encouraging students to utilize local resources for developing their life, economics and society.
6. Goals and contents will fulfil specific group of students.
7. Helping students to know and develop their community and live a life there peacefully.

### **Local-based curriculum developed by modifying the national curriculum**

The central-based curriculum developed at the national level is not able to meet all local needs, especially in localities that hold different belief, culture and language as in southern border provinces of Thailand. Modifying the nation curriculum to meet

local needs is inevitable. However, modification must not contradict the national curriculum. In Thailand, the above modification can be done at the regional, provincial and school levels.

Curriculum development by modifying the national curriculum implemented at regional level can be done as follow:

1. Revising and modifying the national curriculum by documentary analysis.

Curriculum developers have to analyze and diagnose curriculum documents developed at the national level such as documents about methods of teaching, teaching guides and methods of evaluation.

2. Revising and modifying curriculum contents and experiences. Curriculum developers have to analyze the curriculum contents and experiences to ensure they are consistent with local needs and applicable to daily life. This step can be initiated by doing literature analysis, or by doing research, or holding seminars and workshops.

### **Local-based curriculum that is a part of the national curriculum**

Designing a section of sub-curriculum to support the national curriculum is to propose new subjects which are congruent with local needs, but these subjects must not contradict the structure of the national curriculum in terms of goals, objectives and periods of studies.

### **The need of the local-based curriculum**

A majority of curriculum projects are typically developed centrally or nationally and are known as central-based curriculum. It is believed that education, based on this curriculum, will produce learners who have certain similarities expected by the country regardless of beliefs, races and social status. The centrally-based curriculum development refers to head office personnel in an educational system making decision about what is to be taught and often how it is to be taught and assessed. However, its curriculum development provides chances for direct involvement from teachers and students. Though it is essential to produce learners who possess some similarities, education which helps them meet their real needs is also considered significant. In fact, different localities will naturally be different in terms of cultural, social and economic differences. Thus having only one national curriculum is inadequate. A local-based curriculum needs to be designed in order to meet the real needs of different localities. In addition, the national curriculum represents a centralization of education and such centralization is opposed to democratic principles.

Planning the local-based curriculum will depend upon local needs by starting with the studying of local needs and situations. It will be meaningless if the local-based curriculum fails to meet the above requirements. Data pertaining to local needs and local situations can be obtained through interview, observations, checklists and the like. The researcher believes that the local-based curriculum introduced in any schools without the prior study of local needs is almost invariably doomed to failure.

### **Nature of the local-based curriculum implementing in Islamic private school**

There are a variety of guidelines that can be designed for constructing the local-based curriculum for Islamic private schools. These guidelines; however, should not be in conflict with the principles of Islam since Muslims in southern border provinces of Thailand zealously preserve their own culture, mostly based on Islam. Their education therefore must be Islamic in nature.

In fact, Thai society prizes democratic ideals and its values have become major goals in Thai education. Analogously, Muslim society prizes Islamic ideals; therefore, Islamic values are very essential for the goals of education organized in Islamic private schools.

Seemingly, there are three guidelines for constructing the local-based curriculum. Firstly, it can be designed by modifying the national curriculum. Islamic subject area will be incorporated in the subject area of Society, Religion and Culture. Other subject areas will be islamized reflecting local needs.

Secondly, the local-based curriculum can be designed separately. Nearly all Islamic subject areas will not be incorporated in the national curriculum. Only few subjects will be installed in the subject area of Society, Religion and Culture. Designing such a curriculum means that there will be two curricula implemented in Islamic private schools simultaneously. Graduates will be awarded two certificates, namely, a Certificate of Religious Studies and a Certificate of Academic Studies.

Thirdly, the local-based curriculum can be constructed as an integrated curriculum. In such a curriculum, Islamic subjects will be a separate subject area, out

side the eight subject areas proposed in the national curriculum. Accordingly, there will be nine subject areas in such a curriculum, namely, Thai Language; Science; Mathematics; Society, Religion and Culture; Physical Education; Arts; Vocational Education and Technology; Foreign Languages; and Religious Studies.

Since the national curriculum suggests only eight subject areas, a curriculum designed by modifying the national curriculum without adding new subject area is considered most appropriate. However, such a curriculum does not gain positive response from Islamic private schools. The lack of priority given to Islamic subjects in this curriculum is not reflective of local needs. The national curriculum mainly emphasizes on intellectual development. However, education should not stop with the development of intellectual power but must also provide learners for regulation of their personal and social life and a code of behavior based on fundamental principles of Islamic ethics and religion.

### **Related literature**

At present, there are no researches dealing directly with the guidelines for constructing the local-based curriculum which are going to be implemented in Islamic private schools. However, there were researches on curriculum and researches in which the Delphi technique was used that were considered relevant to the study.

Pongsri (1992) had conducted the research to develop a curriculum design to instill environmental values into junior high school student of Thamaga Punsirivittaya School. The results showed that after having local curriculum the students tended to

have high scores of environmental values than before. The students who were taught by the local curriculum had much higher scores of environmental values compared with students taught by conventional curriculum. The results showed also that environmental scores between boys and girls were not different.

Santi (1996) had conducted the research on the states of local curriculum development on life-experiences area of elementary school teachers in Nakhon Sri Thammarat province. The results showed that overall subject's performance in local curriculum development on life-experience area was at a moderate level and teachers in medium size schools had a higher level of performance than that of in large schools. However, teachers' performance in the areas of knowledge on the core curriculum and local curriculum development and organization of instructional activities to suit local needs was at a high level.

Phanee (1995) had conducted the research on Mathematics Curriculum in the Upper Secondary Education Curriculum B.E. 2524/1981 (amd.1990). Her research indicated that there was only a moderate level of agreement on curriculum objectives, contents, methods of teaching and evaluation process. However, the curriculum objectives were highly congruent with the student maturity. Regarding the curriculum problems and deficiencies, the findings showed that: (1) teachers did not really understand about the curriculum; (2) some contents were very difficult; (3) lack of instrument and materials as well as teaching aids; and (4) teachers had been overburdened with teaching, no time for reading.

The Office of Educational Research of Thailand (1995) had made a research on the success of Social Studies Curriculum. Results showed that more than 80 % of teachers agreed with the rationale, objectives, structure and subject description. The research also showed that the courses offered in Social Studies subjects, both compulsory and optional were highly consistent with student's capacity and interest. But the research on local curriculum on Social Studies, the results showed that it was highly successful in developing the curriculum but the students' achievement at lower secondary level was below expectation but was higher in the upper secondary level.

Sunisa & Phornphen (1994) had evaluated the curriculum implementation of Social Studies Subject in the Curriculum of Secondary Education 2521(amd.1990). The findings showed that teachers mainly agreed with the curriculum objectives, evaluation process, but moderately agreed with the contents and methods of teaching. Regarding student responses, they showed that they highly agreed with curriculum objectives, contents, and evaluation process, but moderately agreed with methods of teaching.

Somchai (1991) had evaluated the curriculum of Upper Secondary Education B.E. 2524/1981 (amd. 2533/1990). The findings showed that the curriculum purposes were clear and suitable with today society. The curriculum structure was highly appropriate and consistent with curriculum purposes. In addition, subject contents could fulfil student needs and were consistent with curriculum purposes. However, student achievement in each subject was low though student's characteristics were appropriate with curriculum purposes.

Phimol (1988) had evaluated the local curriculum of Primary Education of Machongsorn province. The findings showed that there were 66 topics in the teaching plan which were consistent with local needs. There were 49 topics which were locally needed but did not state and were not written in the teaching plan, while there were 95 topics which were not consistent with local needs.

Wasna (1990) had conducted the research on the problems of the implementation of the Primary Education Curriculum of 2521/1978 (amd.1990), primary level. The findings showed that there were lacks of financial supports, materials, teaching aids. Moreover, teachers were not skillful in using teaching aids and had no time to prepare their lesson since they were burdened with other works. In addition, there were no consistent supervisions from the district school supervisors.

Chen & Chung (2000) had conducted the research on school-based curriculum development. They showed that the idea of encouraging school-based curriculum development was the best place for designing the curriculum since there was participation from the learners and teachers. They indicated that centrally-base curriculum development was abstract and did not consider the specific characteristics of different school. Finding of the study showed that there were problems and constraints perceived by school administrators. They were as follows:

1. Lack of willingness, ability, and skills to participate in curriculum development.
2. Lack of trust and true empowerment.
3. Lack of evaluative and feedback mechanism.

Problems and constraints perceived by teachers were as follows:

1. Lack of administrative support.
2. Lack of consensus and cooperative understanding in team teaching or group deliberation.

The study recommended that the implementation of school-based curriculum needed the following promises:

1. Demands of implementation from newly reformed policies.
2. Curricular consciousness awaken and awareness of pedagogical practice.
3. Change of social value and political ecology.

National Education Commission of Thailand (1996) had conducted the need assessment of parents towards the future of their children. The findings showed that 21 % of parents expected that their children should further their studies in the field of academic education, 20.5 % in vocational education; 33.3% did not mention the field of studies though they wanted their children to pursue their studies; 16.7 % hoped that their children should go for work; and 8.3 % did not give clear indication about academic and vocational future of their children.

The National Education Commission of Thailand (1992) had conducted the needs assessment research, the findings showed that 57.8 % of student wanted to pursue their studies in the field of academic education and only 35.2 % wanted to study in the field of vocational education since they believed that they could find job easily after completing Grade 9.

Educational Research Unit, the Ministry of Education of Thailand (1998) has researched about the expectation in teaching and learning. The findings indicated that

good teacher should possess the following qualities: kind, good teaching, humor, politeness, gentleness, free from habit of gambling, smoking, and drug addiction. In addition, he should care for, love, and understand his students. While it was expected that good student should possess these characteristics, responsibility, trustworthy, patience and steadiness.

Phenluk (1990) had done the research on the state of the implementation of Work-Oriented Experiences Area in elementary school in region 8. The findings showed that about 94 percent of teachers provided activities that were in accordance with the real life of the students.

Henson (1980) had utilized the Delphi technique in his research to create a library building program at Florida Institute of Technology. The purpose of the study was to use the Delphi technique to generate data that would be useful in the conceptualization and development of academic library building program. Based on the results of the study it showed that the Delphi technique had provided useful data for consideration for the library building program at Florida Institute of Technology.

Alvarado (1984) had conducted the research on a feasibility study of an office information network for the Ministry of Education of Venezuela. The propose of the study was to conduct a technological economic, and political feasibility analysis of an office Information Network for the Venezuela Ministry of Education. The results of the study showed that the implementation of the prototype Office Information Network for the Venezuela Ministry of Education was considered by the panelists as highly feasible.

Sariya (1999) utilized the Delphi technique in his research in order to develop the Master of Education Program in Research and Evaluation. The results showed that all presented courses were suitable for the Master of Education Program in Research and Evaluation.

Niloh (1997) had studied the administrative trends of the College of Islamic Studies, Prince of Songkla University in the next decade. The Delphi technique was used in his study. The purpose of the study was to study the expert opinions upon emerging administrative trends in the College of Islamic Studies in five areas, namely, goals, policy, general administration, administration in academic affairs and cooperation with other institutions. This research was also attended to draw a model of administration for the College of Islamic Studies in the next decade.