CHAPTER III

CONCEPTUAL FRAMEWORK AND HYPOTHESIS

A. Study Perspectives

The cluster of gaps requires the adoption of different perspectives such as:

(1) A "need" perspective in public health professional development, exploring required public health practices, services, competencies and programmatic requirements; as directed by the problem gap.

(2) A "methodological" perspective in human resource development, focusing on the design of a relevance assessment protocol for a program's purpose, objectives and curriculum; as directed by the solution gap.

(3) A "programmatic" perspective focussing on curriculum development and implementation requirements related to the actual versus the desirable educational program, as directed by the implementation gap.

In addition to the question of what perspectives were adopted for this study, there was also the question from whose point of view? The complexity of the problem required inclusion of a variety of stakeholders and partners; for example, representatives of community-based organisations (NGO); and representatives of public health professionals at both the provincial and national levels; the private sector; academic institutes; and the main schools of thought on public health and education, as elicited from the literature review.

B. Research Questions

This study addressed the following research questions:

1. How can required practice for health system development being identified?

   a. How can a health system be described?

   b. What factors determine the need for health system development?

   c. What are the development needs for a health system?

   d. What services are required to foster health systems development?

2. How can requirements for developing competencies be identified, given the needed the practices and services?

   a. What competencies are needed to implement required services within a health system?

   b. What knowledge, attributes and skills are needed to arrive at required competencies?

   c. Who are the target-groups for the LWP?

   d. What is the need of the health system and target groups in terms of programmatic requirements?

   e. What would be the requirements for developing appropriate competencies?

3. How can 'programmatic development need' be evaluated, for the implementation of relevant postgraduate educational programs in public health, given the requirements for achieving required competencies?

   a. How can a program be described?

   b. Which factors in program design are essential to ensure relevance?

   c. What would be appropriate indicators of relevance for educational programs?

With reference to the cluster of gaps, it was difficult to isolate some of these questions, but there was a need to focus the study. The primary purpose of this study was to employ the

concept of relevance, therefore, I concentrated on the first and second question. This because a relevance assessment instrument could not be developed and its application could not be implemented in the absence of an analysis of the need of local public health system and human resource development.

C. Research Design

To research the cluster of multiple need as discussed in Chapters I and II, it was appropriate to design the study as a descriptive embedded case study[1] (Yin, 1989), using quantitative and qualitative approaches that fit the study; the rationale for this study approach is explained in Section 3.D.

The analysis was based on the theoretical proposition that relevance of public health education to practice, depends on the extend to which priorities have been set related to practices, services, competencies, target groups and programmatic requirements; and education program development. Further, recognising that indicators may vary with the context, with the selected target groups among human resources and with the appreciation of priorities by different partners and stakeholders, I completed the following units of analysis:

- An assessment of perceived need related to public health practice.
- A design study to develop a relevance assessment instrument.
- An application of the instrument in an evaluation of the LWP.

The first unit of analysis assessed the need for required practices and services, carrying on the investigation into an assessment of the need for required competencies, target groups and programmatic requirements. Arriving at this stage in the research, I then conducted an instrument design. Applying the instrument to assess the relevance of educational programs was the final unit of analysis; i.e. an evaluation of the LWP being implemented by the CPH, CU in Thailand.

This set of studies resulted in a discussion on the analysis of need, the design of an instrument and assessing relevance of an educational program in public health. This study was not concerned with statistical generalisation of outcomes but with analytic process generalisation.

D. Rationale for the Study Approach

My decision to apply a descriptive embedded case study was based on (1) the purpose of the study, (2) the nature of the investigation and (3) conditions such as the type of research questions and the degree of focus.

In the absence of an operational definition, this study was an empirical investigation of the phenomenon 'relevance' within the context of the LWP in Thailand.

The nature of this study required dominantly qualitative data analyses, such as content analysis of interviews, focus groups and documents. Further the study required a participatory process. This, in turn, required some degree of adaptability and flexibility during the investigation, as well as an inductive analysis that led to a generalisation on the process.

The main research questions in this study were concerned with "How to", therefore, this type of questions justified a case study strategy.

E. Conceptual Framework

The conceptual framework, as presented in Figure-3.1, highlights the two major components of the study.

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[1] An embedded case study occurs when, within a single case, attention is also given to a sub-unit or sub-units.
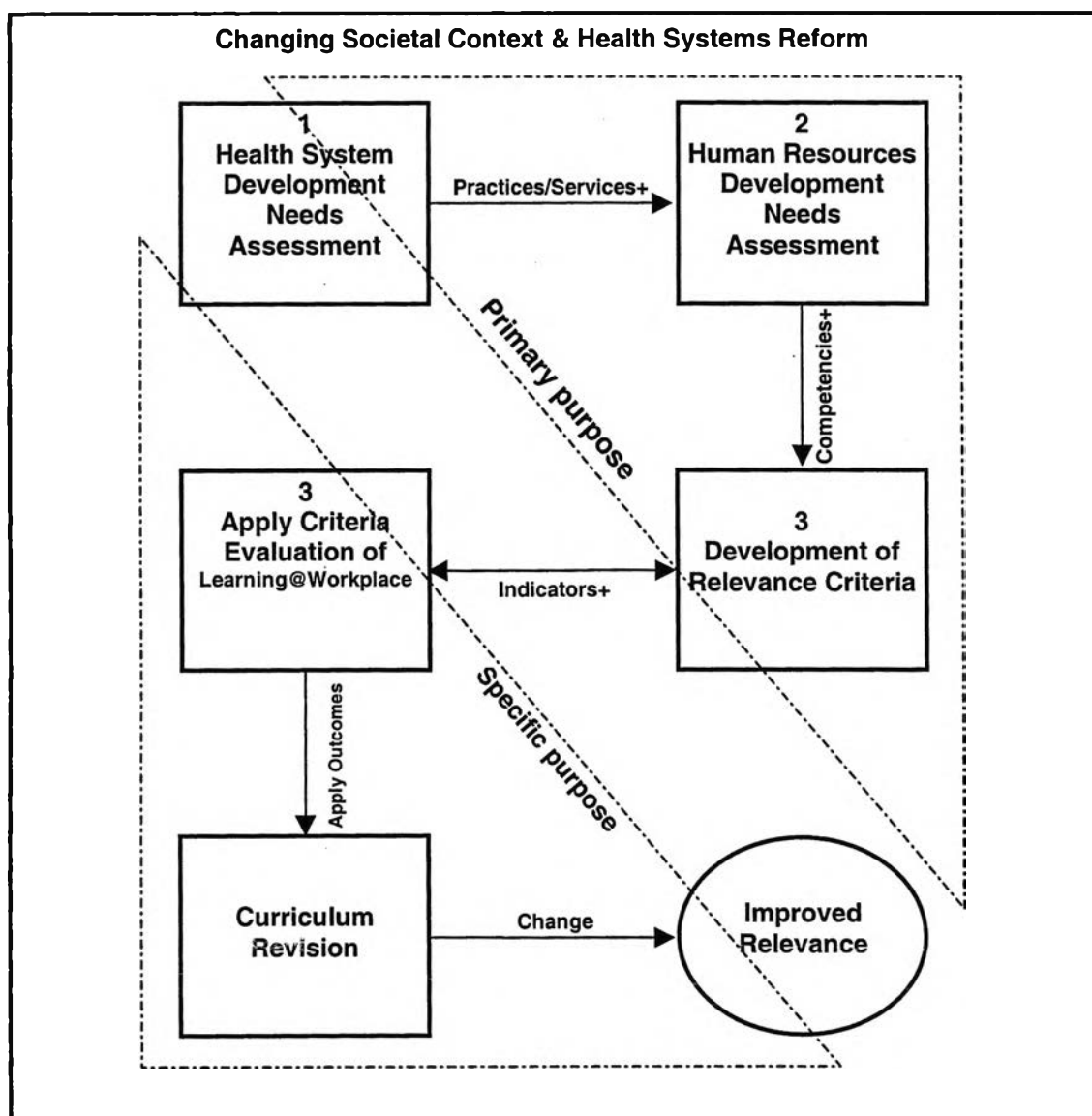
First, as discussed by Diamond (1998), the assessment of the LWP requires a statement of the program's purpose and objectives, which then requires an analysis of need. This analysis of need will, then, facilitate the design on an assessment protocol.

To arrive at relevance factors, it was needed to explore and describe the key- variables related to the cluster of gaps. In order to do so, I decided to use various models including, public health system development models (Peckham, 1999; Turnock and Handler, 1997) and a human resource development model (De Cenzo and Robbins, 1994), as well as public health services and competency models (CLAPHW, 1998). Applying these models facilitated the identification of variables to describe practices, services, competencies and programmatic requirements, as well as the identification of various stakeholders. A framework for relevance criteria was developed, based on the need assessment outcomes and curriculum development models (Diamond, 1998; Bligh, Jaques and Piper, 1981) as well as a quality performance model (CEPH, 1999).

Second, these explicit indicators were applied through an evaluation on the relevance of the LWP. The evaluation has to be seen as a means to reflect upon and further develop the framework for relevance factors and their indicators. I developed the evaluation design based on a quality improvement process model (Herman, Morris and Fitz-Gibbon, 1987). This not only allowed an assessment of the planned and the actual program against relevance indicators, but also ensured an integrated judgement, by including the perspectives of the stakeholders, in addition to indicators. Although the evaluation did not go beyond assessment, it may call for curriculum revision by offering discussion on how evaluation outcomes could be applied.

In summary, assessment of the perceived need for public health systems development addressed (1) the problem gap, while an assessment of perceived need for human resource development focused on (2) the solution gap. These inputs contributed to the development of a framework for relevance indicators. At this stage, the primary purpose of the study was met and formed the base for the second component of the study namely the application of relevance criteria through an evaluation thus addressing (3) the implementation gap.

Figure-3.1: Broad Conceptual Framework: The Study in its Context

Changing Societal Context & Health Systems Reform

1
Health System Development Needs Assessment

Practices/Services+

2
Human Resources Development Needs Assessment

Primary purpose

Competencies+

3
Apply Criteria Evaluation of Learning@Workplace

Indicators+

3
Development of Relevance Criteria

Apply Outcomes

Specific purpose

Curriculum Revision

Change

Improved Relevance

Legend: 1-3 refers to the related research question

Pink = Need Assessment, Blue = Instrument Design, Yellow = Evaluation

Bold = study focus

1.   Need Assessment

a. Public Health Practices

An analysis of the public health system's goals and objectives; system inputs, functions and outputs; population health need, epidemiological trends and environmental factors were facilitated by the 9th National Health Development Plan (MOPH, 2001). A panel of public health

experts reviewed and discussed the 9th National Health Development Plan and the literature to arrive at required public health practices for Thailand.

b. Public Health Services

A literature review and panel discussions facilitated the identification of essential public health services. Key stakeholders then, prioritised the services adopted for this study through a judgement on perceived level of performance.

c. Public Health Staff

The expert panel for this study adopted a description of public health staff, classified into 3 job categories. Key stakeholders then, provided their perceptions on the level of staff involvement for each of the services.

d. Public Health Competencies

A literature review and panel discussions facilitated the identification of public health competencies and skills. Key stakeholders then, prioritised the public health skills through a judgement on the required level of skill mastery for each of the skills and for each of the 3 levels of staff.

e. Target Groups

Collecting the perceptions of key stakeholders on job categories, functional level and educational background facilitated identification of a target group for the LWP; based on the health system development need for Thailand.

f. Specific Learning Needs:

Collecting the perceptions of local health authorities and former and current LWP students facilitated identification of specific learning needs.

g. Programmatic Requirements

The 3 dependent variables for programmatic requirements were program's level, type and major. Collecting the perceptions of key stakeholders on the required program level, type and major facilitated identification of programmatic requirements.

h. Partnerships

Perceptions of Provincial Chief Medical Officers (PCMO) on College-Workplace liaison and reciprocity facilitated identification of perceived need for partnerships.

Figure-3.2: Conceptual Framework: The Need Assessment
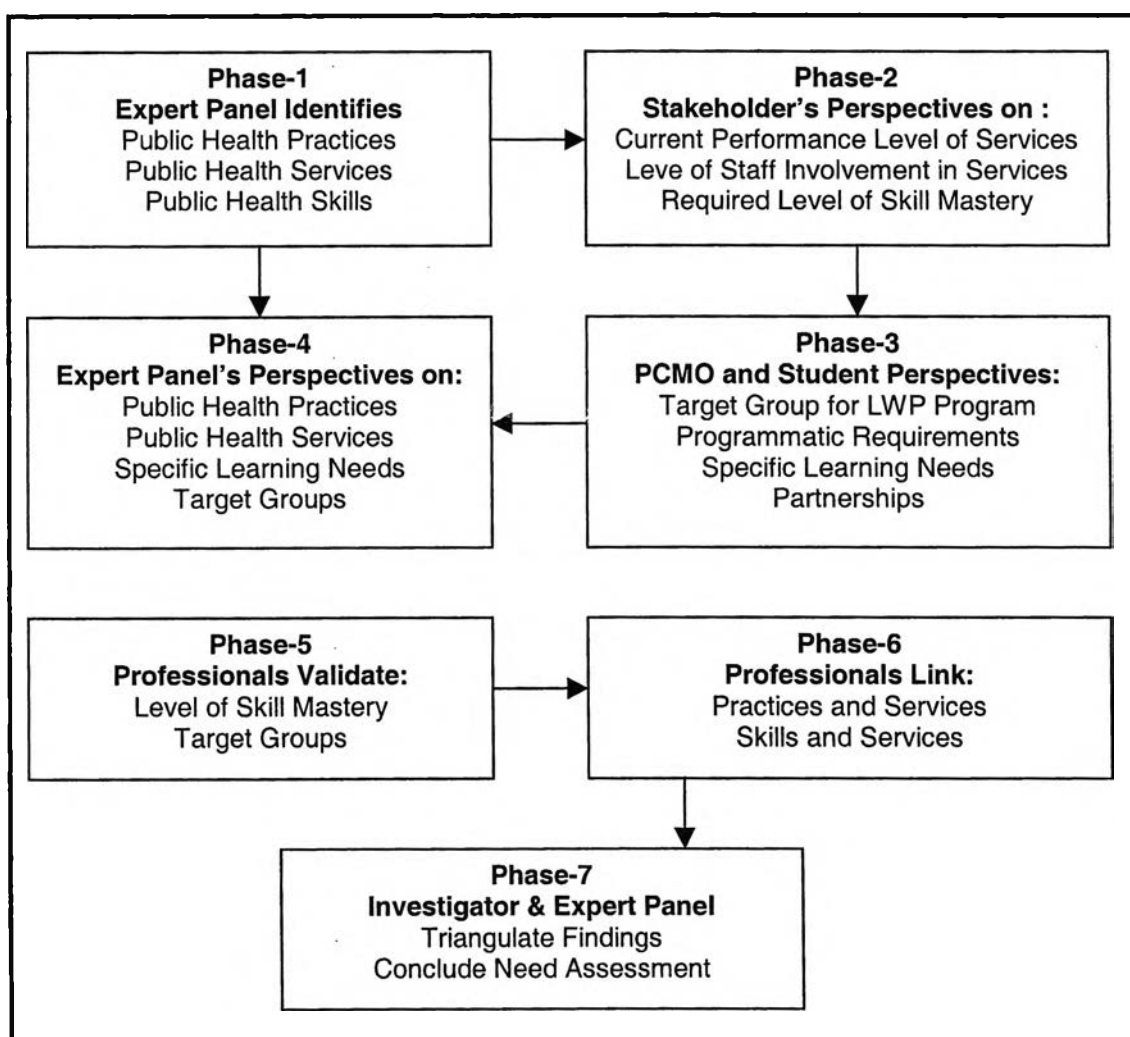
Data collection for these variables in the need assessment was organised in a systematic flow of 7 phases as presented in Figure-3.2.

2. Instrument Design

Development of the Relevance Assessment Instrument (RAI) design required a systematic panel review, a prospective evaluation and reflections on instrument testing by a public health and education expert panel as shown in Figure-3.3.

The professional need in terms of required practices, services and competencies, target groups, specific learning need, programmatic requirements and partnerships as perceived by those involved in public health practice, provided the required input to the identification of indicators.

Figure-3.3: Conceptual Framework: Instrument Design
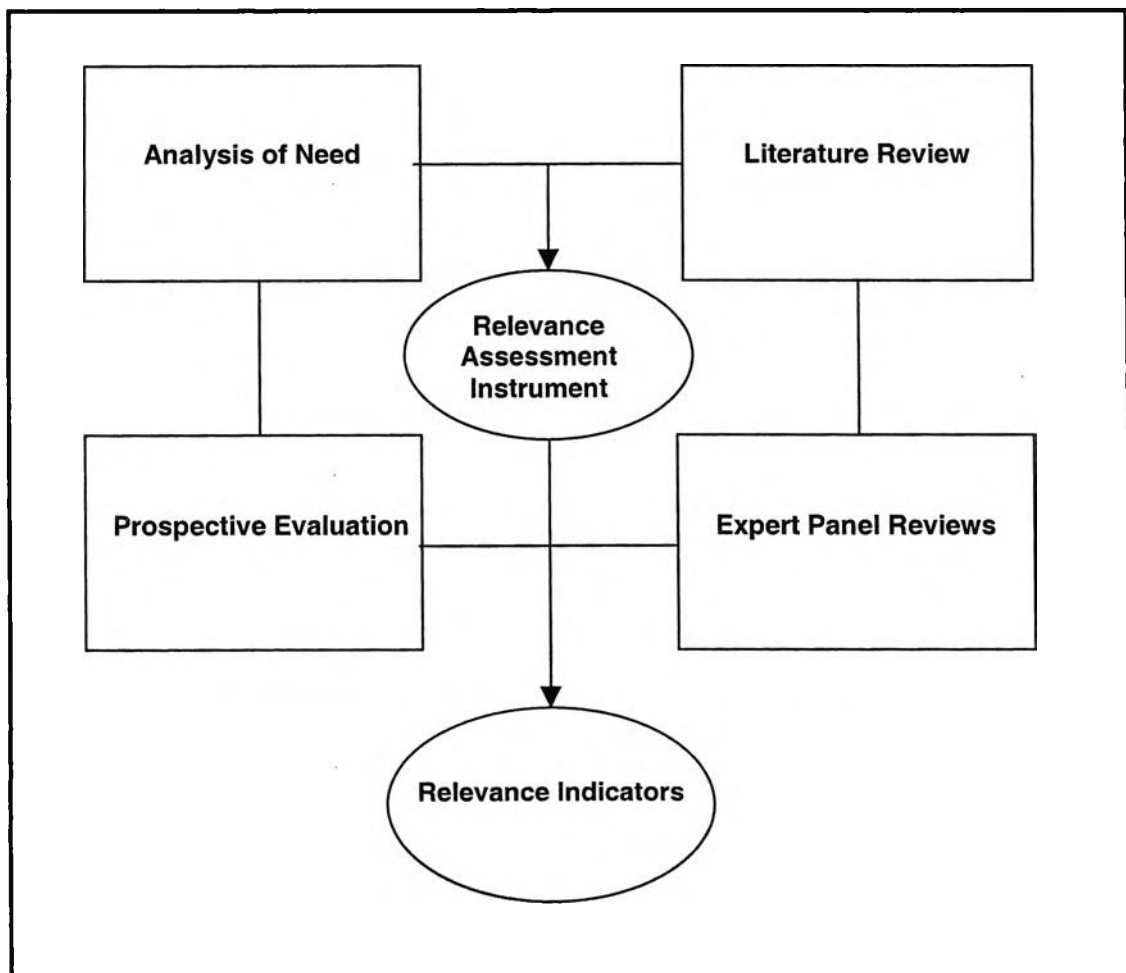
3. Evaluation

The role of implicit and explicit realities and the importance of formal and informal sources of information in decision-making need to be recognised. First, the evaluation framework presents the perspective that formal policy and plans only provide general guidelines and only have a limited effect on actual practices. Second, policies and practices are dependent on formal or informal assessments of how a program is operating and its effects. These assessments can capture only a part of a program's relevance and provide only rough, imperfect estimations of reality. Third, the framework acknowledges that assessments, in reality, are based on the integration of various sources of information to complement general values and expectations; only some of which are represented in explicit data sources. Finally, evaluating an educational program is not a purely technical exercise. The effects of contextual factors on the evaluation of programs have a role to play as well. I present my framework for testing the RAI through an evaluation for the LWP, in Figure-3.4. Each component of my framework is discussed below.

Figure-3.4: Conceptual Framework Evaluation Research
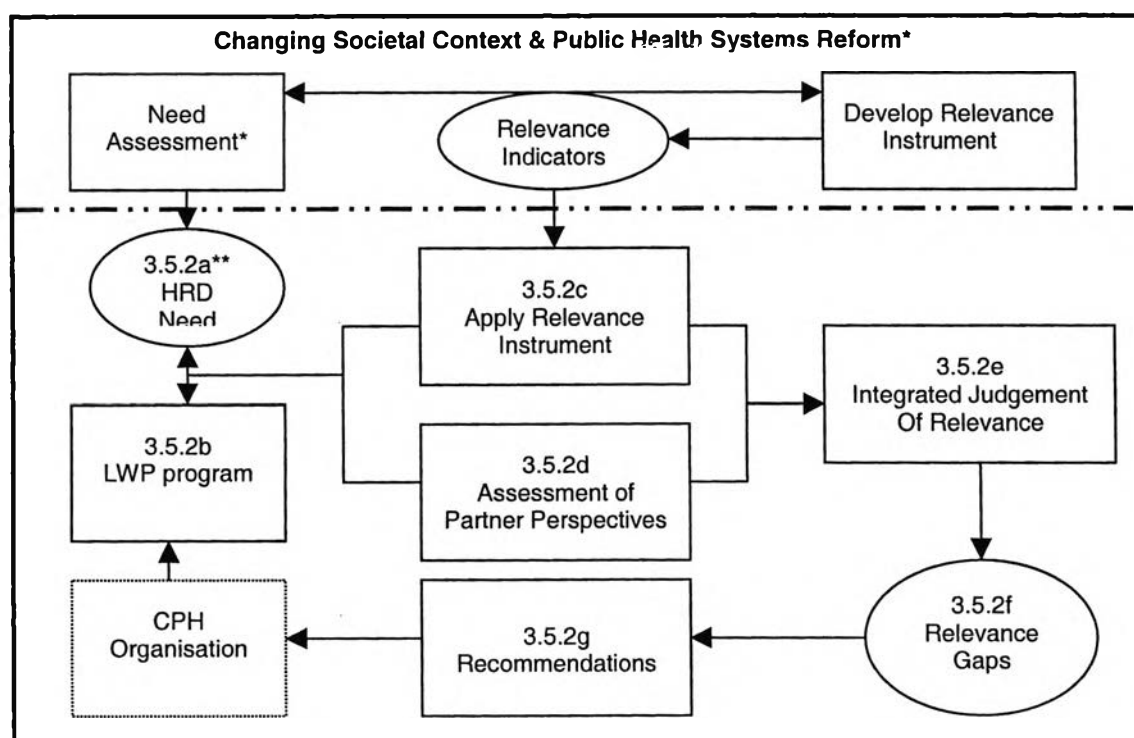
Legend: * As identified earlier, ** Refers to explanation sections below

a. Human Resources Development (HRD) Needs

An assessment of the need for public health practices, services and of the related public health competencies, together with characteristics of targeted professionals and their specific learning needs, provided information to develop systematic rationale for human resources development need. The evaluation analysed unrealised need and unused opportunities and aimed to identify those difficulties preventing need being met.

b. LWP

An assessment of program relevance provided information and feedback for monitoring by the CPH, which was responsible for implementation of the program. This assessment allowed (1) detection of existing defects and (2) generation of information for program decisions.

c. Apply Relevance Indicators

Indicators on relevance, defined in the second stage of this study, were applied to assess program relevance. Applying the indicators on relevance enabled reflection on the indicators themselves, as well as a reflection on the process to arrive at these indicators. This reflection, although important, was an ongoing diffuse process that took place throughout the evaluation and, therefore, was not a clearly defined step or phase in the evaluation process.

d. Assessment of Partners Perspectives

An assessment of partners' value perspectives provided information from which reactions and judgements of program attainments (relevance) could be made regarding the extent to which the program was perceived to be relevant. Partners' perspectives added 'other' values to the evaluation on program relevance and, therefore, significantly contributed to arrive at an integrated judgement.

e. Integrated Judgement of Relevance

Judgements on the relevance, of the LWP, are not purely technical. Besides explicit goals, objectives and indicators, judgements also develop values including prior knowledge on

the appropriateness of the educational program through an assessment of partners' perspectives. A compilation of explicit indicators and 'other' values, such as partners' perspectives, produced an integrated judgement on program relevance.

f. Relevance Gaps

Formal (objective) and informal (subjective) evaluation outcomes produced an integrated judgement that led to a description of main relevance gaps.

g. Recommendations

To answer the question on how to apply evaluation outcomes, the program evaluation needed to be complemented with a discussion on the related conditions. A discussion of the evaluation outcomes resulted in recommendations to improve LWP in terms of its relevance and touch upon development aspects within the organisation that may require further study.

Although it can be questioned whether diagnosis is one activity and intervention another, it is helpful to consider the phases of planning and managing as following diagnosis and feedback. The scope of this study did not go beyond diagnosis and feedback but provides the required information to plan and implement change.

In summary, the specific purpose of the study addressed the following issues: (1) test and reflect on relevance indicators, (2) evaluate the relevance of the LWP and, (3) discuss aspects of program development.

F. Hypothesis

Based on the selected case-study approach, I applied an interpretative perspective in the formulation of hypothesis. My aim was to describe the generation of a theory on the process of defining relevance and to arrive at essential factors and indicators that determine relevance. Therefore, the null hypothesis (H_0) was:

The purpose, objectives and curriculum design of the LWP are congruent, in general terms, with the need as perceived by key stakeholders in Thailand (in terms of current performance levels of services and of the skills required for mid-level management staff); with the stakeholders being defined as public health professionals, public administrators, public health academics and MOPH representatives.

To test the hypotheses:

a) The needs as expressed by key stakeholders were determined and validated.

b) With this information a RAI was developed and validated

c) Essential factors of the RAI were then applied against the LWP Chonburi-II site.