PROPOSED MONITORING SYSTEM FOR TRAININGS OF THE PHILIPPINE NATIONAL HOUSING AUTHORITY

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Chapter I
INTRODUCTION

This chapter presents the overview of the organization under study, the Philippine National Housing Authority, its mandate and existing HRD related concerns which paved way to the development of this paper. It further includes the rationale, objectives and scope and limitations of the study.

Background of the Study

The Philippine National Housing Authority (PNHA) is the sole government agency tasked to develop and implement a comprehensive and integrated housing program which embraces housing development and resettlement, sources and schemes of financing and delineation of government and private section participation. It is also mandated to provide affordable and adequate housing for homeless low-income families and afford them access to social services and economic development to propel development of self-reliant communities. The PNHA is the production arm of the National Shelter Program and is under the administrative supervision of the Housing and Urban Development Coordinating Council (HUDCC) of the Philippine government. Committed to this mandate, the PNHA aims to provide quality government service, thus maintaining a competent and fully functioning workforce. One of the ways enforced by the PNHA to achieve this is by implementing a corporate policy on career and personnel development which stipulates the following objectives:

- Provide opportunities for personal development and career mobility within the organization;
- Optimize manpower utilization through sound administrative policies and personnel programs which consider both individual competencies and performance requirements;
- Rationalize all personnel management policies and practices; and
- Establish support mechanisms and activities which will foster human resource planning at the organizational level and individual career planning at the employee level.

One of the components of this policy is centered on human resource training and development that provides opportunities to improve performance, knowledge and skills and

work effectiveness of employees and prepare them for higher responsibilities. The corporate arm in implementing this policy is the Human Resource Management Department (HRMD), specifically its Career and Training Division (CTD). Over the years, CTD and other participating organizational units have been conducting series of HRD interventions, one of which is formal training. In the same provision, formal trainings are classified according to purpose (organizational development and compliance to the Philippine Civil Service Code); level (managerial, supervisory, and rank and file) and source (in-house and outsourced).

However, due to prolonged economic crisis in 2004, management has resolved and circulated a memorandum restricting the implementation of formal trainings[1] unless mandated by law or essential and necessary in meeting employment requirements. With this, CTD is confronted with issues on the appropriate selection, approval and prioritization of trainings, tracking of training budget and implementation status, and identifying strengths and weaknesses of the corporate training system[2]. As a consequence, the PNHA needs to create mechanisms that will help make better decisions pertaining to investments in trainings.

Since management has become more critical about investments in trainings, CTD is now responsible for following specific criteria that will help identify priorities and make the necessary justification to management concerning corporate trainings. Management needs a solid base for decisions, thus the first need for CTD is to structure a framework that will present an over-all picture of the organizational training system.

Second, there is a need to monitor the status of the training system in terms of targets, accomplishments, excesses and shortages such that explanations can be provided to management and employee representatives. Specifically, CTD must monitor not only the investments and outcomes from trainings within each year, but also the processes involved. This is directed towards creating a broader perspective in tracking the quality of the corporate training system. It also calls for the monitoring of trainings in compliance to standards set by the PNHA and the Philippine Civil Service Commission. This may be referred to as a systems approach in monitoring the quality of trainings.

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[1] Training, as discussed by Peter Bramley in his book Evaluating Training Effectiveness 2nd Edition (1996), is a systematic process that involves planning and control rather than random learning experience. It should be concerned with changing concepts, skills or attitudes of people treated either as an individual or groups. Further, it is intended to improve performance in both the present and the following job, and through this should enhance the effectiveness of the organization. In this study, training or training program shall refer to all formal trainings conducted by the Career and Training Division of the Philippine National Housing Authority that covers all activities which effect increase of knowledge and skills or enhance behavior and attitude. It shall cover managerial, supervisory, and rank and file for compliance with Civil Service requirements and developmental purposes provided internally or outsourced.

[2] Training system refers to all encompassing training-related policies, plans, program, effort, activities and personalities who influence or are influenced by trainings interventions conducted and supervised by the Philippine National Housing Authority.

Third, CTD needs a monitoring system to diagnose the strengths and weaknesses of the organizational training system. This is in line with the PNHA policy of securing a responsive career and development plan for its workforce. This will enable CTD to detect and maintain the good qualities of the training system or make the necessary improvements to meet established standards.

Fourth, there is a need for CTD to integrate several existing measures into one monitoring system such as but not limited to (1) needs assessment schemes in the forms of performance review[3], management inventory[4], management requests[5], and change in management systems[6]; (2) pre-post learning assessments and (3) performance evaluation before and after training interventions. CTD also accounts for the quality of training implementation by screening training contents and methods, recording attendance and participation of trainees and measuring trainee reaction after attending the training. However, integrating these measures to create a systems approach to tracking training quality is apparently more practical than keeping them separately. A monitoring system enables CTD to compare cross-sectional measures within a monitoring system, if balance or prioritization is to be achieved.

To recapitulate, the Philippine National Housing Authority may benefit from a system that will (1) provide an over-all picture of the training system to help make accurate decisions; (2) monitor status of the training system through tracking the contributing elements, processes and results; (3) diagnose strengths and weaknesses of training the training system, and (4) integrate all existing measures. In an attempt to help resolve the aforementioned concerns, this paper proposes the design of a monitoring system for in-house trainings conducted and supervised by the HRMD of the PNHA and the identification of the most appropriate measures needed to track the quality of the training system, and in making or prioritizing decisions pertaining to formal trainings.

Rationale of the Study

The purpose of this study is to design and propose a monitoring system for trainings in aid to the organization's goal of performance improvement, skills enhancement,

[3] Performance review is strategy in identifying skills and knowledge gaps of employees in performing their jobs.
[4] Manpower Inventory arises from staffing and placement activities such as hiring, retirement, turnover, promotion and lateral transfer of employees.
[5] Management Request is a form of training needs assessment where management staff recommends the attendance of employees to trainings in order to meet operational requirements.
[6] Change in System or Subsystem results in training needs attributed to changes in policies, new equipments and work flow.

knowledge acquisition and work effectiveness of employees for higher responsibilities through corporate trainings.

Specifically, this paper is conducted to achieve the following objectives:

1. To conceptualize a monitoring system by going through the following steps:
    a. Identify existing models and frameworks as basis in designing a monitoring system for trainings.
    b. Identify topics and indicators aimed at measuring the quality of trainings.
    c. Integrate existing training measures to create a simplified and all-encompassing monitoring system for trainings.
2. To assess the usefulness of the identified topics and indicators to the proposed monitoring system based on the following criteria: *relevance, priority, effectiveness*; *appropriateness* and *complexity* of the needed data gathering process.
3. To determine whether there is a significant difference in opinion among groups of respondents in assessing the usefulness of topics and indicators in monitoring the quality of trainings based on the stated criteria.

Scope and Limitation of the Study

This study is conducted to design and propose a monitoring system for trainings implemented by the Human Resource Management Department of the Philippine National Housing Authority, specifically trainings conducted in the year 2004 and onwards. It further covers the study of existing monitoring systems.

In the course of developing a monitoring system for trainings, there are four organizational units that actively participate in the design and delivery of trainings within the PNHA, namely: Career and Training Division (CTD), Livelihood Development Department (LDD), Community Relations and Information Operations Department (CRIOD) and Corporate Operations Systems Office (COSO). From these units, designers, trainers, and evaluators of trainings will also participate in assessing the leading topics and indicators. To create a balance, some of the participants of trainings conducted in 2004 will likewise participate in forming and assessing their opinions on the selected topics and indicators. Topics[7] will be assessed based on a threefold criterion: relevance, priority and effectiveness.

[7] Topics refer to all factors and issues that provide information in tacking the status, quality, performance, and strengths and weaknesses of the training system of the PNHA.

Indicators[8], on the other hand, will be assessed according to appropriateness and complexity of data gathering process.

Finally, this study will provide a proposal for a monitoring system of trainings for review and approval of the PNHA Management. The proposal also includes the processes by which concessions among stakeholders (managers, trainers and trainees) will be made leading to the most suitable topics and indicators. Based on collective opinions, the proposal takes the form of a framework tailor-made to fit the needs of the target organization.

[8] Indicators refer to quantitative measures of units which are used to provide information about the effects of HRD policies and quality-control efforts of the Career and Training Division of the PNHA.

Chapter II
LITERATURE REVIEW

As the theoretical base of this study, this chapter explores the monitoring systems for trainings authored and popularized by (1) Kaplan and Norton (Balanced Scorecard), (2) David Bushnell (IPO Approach) and (3) Elwood Holton III (Learning Transfer System Inventory). In spite of the number of available taxonomies in monitoring the quality of trainings, only three of the most commonly used frameworks will be discussed and used as a guide in developing a monitoring system for trainings. This chapter also covers the definition of terms used, rationale, characteristics, and elements of these frameworks. The terms monitoring system, topics and indicators have more emphasis in the discussions, as these concepts form the core of the study.

Monitoring System

What is a monitoring system? What is the purpose of a monitoring system? What are the different structures, orientations and/or classifications of a monitoring system? What factors should be considered in designing a monitoring system for trainings? The subsequent discussions will answer these questions leading to a thorough understanding on the subject.

What is a monitoring system?

According to Leithwood, Aitken and Jantzi (2001), a monitoring system is defined as a concise description of what should be (objectives) and a process to determine what is (procedural and status report). It is further explained that it is a framework within which to select or define, interpret and use a wide array of indicators. On a similar ground, Fitz-Gibbon (1996) cites that monitoring is a way of examining quality or performance, largely by the use of indicators focused on outcomes. However, by monitoring, it shall generally mean the use of performance indicators not only regularly collected but also being reported back to the units responsible. This definition often uses concepts such as performance, outcomes and feedback.

Greaney and Kellaghan (1996) also consider monitoring as systematic and regular procedures for the repeated collection and interpretation of assessment data of important aspects of the subject under study. It is not necessarily restricted to outcome variables, but

can also involve contextual information and measures of inputs and processes (Husén and Tuijman, 1994; and Scheerens et al., 1988).

After considering the abovementioned definitions, it can be summarized that a *Monitoring System* may be referred to as a strategy used to periodically track quality by recording inputs, processes, outputs and outcomes for purposes of enhancing decisions and diagnosis of strengths and weaknesses of instructional and trainings programs. Results of the monitoring system must also be fed back to all concerned units within the organization. A monitoring system encompasses a number of relevant indicators and sub-indicators, the standards by which quality measurements are based from, and the data gathering instruments of the subject being monitored. Integrated in these definitions are the purposes of monitoring to organizations. The use of indicators will be discussed in the later part of this chapter.

What is the purpose of a monitoring system?

When relating to trainings, a monitoring system serves as (1) a mechanism that provides a user or number of users with several sources of information pertaining to the process being investigated, providing feedback and signaling and diagnosing problems (Jansen, 1996); (2) identify problem areas so that corresponding actions can be taken without further delay; (3) assists administrators in determining the best allocation of resources; and motivate and create awareness among administrators and trainers to improve quality (performance) and stimulate self-regulatory mechanisms (Willms, 1992). It is also used to diagnose deviations from policy, determine organizational strengths and weaknesses in accomplishing specific goals, and then launch remedial actions.

What are the most common classifications of monitoring systems?

Basically, this study adopts at least two classifications of monitoring systems according to purpose and stages.

Willms (1992) classified monitoring systems for trainings according to purpose expressed in the forms of compliance, performance and diagnostic monitoring systems. First, *compliance monitoring* ensures that certain standards of provisions are being met. The assumption underlying the use of compliance monitoring is that if organizations meet their standards on various measures, adequate levels of performance will follow. For instance, in order for a manufacturing company to be ISO certified, it needs to make sure that their employees are given the right trainings to arrive at a target performance level in compliance

with the standards. Also in most government institutions, there are provisions on the continuing education and skills enhancement of employees. Institutions are being monitored whether they have satisfied training requirements pending the release of their annual budgets. Second, *performance monitoring* measures the significant change in performance or outcomes as a result of an intervention. Performance-based companies are highly concerned with the outcomes of any given intervention. Sales in particular, performance monitoring is used to observe the increase in performance (sales) after sales personnel were subjected to a series of trainings and workshops. On way of conducting performance monitoring is through comparing pre and post-training performance. Lastly, *diagnostic monitoring system* emphasizes the identification of the strengths and weaknesses of a training intervention. The goals are determined whether the instruction (training) is mastered by the participants (trainees), where trainers identify areas that participants (trainees) need further attention and remedial activities.

Jansen (1996) also conceptualized a classification of monitoring systems focused on the measurement of the elements or stages directly involved in the training. This refers to the monitoring of different stages specifically training inputs, processes and outputs. First, *input monitoring* is concerned with the repeated assessment of contributing elements of a training process. Under this premise, training inputs are referred to as resources available to the (training) system that potentially contributes to the over-all effectiveness of an intervention such as training design and contents, trainer qualifications, learner readiness, time, and financial resources. These elements assume potential influence on the succeeding stages of the training process. Second, *process monitoring* is performed to ensure that training inputs contribute to the expected outcomes, thus monitoring whether the training process used in the delivery will help enhance outcomes. Finally, *output monitoring* is directed towards the measurement of results of an intervention, whether it has any influence on performance after the training is conducted or simply making certain that investments in workplace learning would pay-off.

What issues should be considered in designing a monitoring system?

There are certain factors to consider about the use of monitoring systems. Jansen (1996) argues that a monitoring system can only be successful if it is tailor-made to the requirements of the organizational setting which it is meant to function. This is probably a universally known fact that organizations differ in nature, goals, priorities, operations, processes and outcomes. Monitoring system is naturally placed within the organizational

structure and often functions within different segments of an organization depending on organizational objectives, goals and priorities. It enables decision makers to select, from several options, the package that will optimize over-all effectiveness of a training program. Users can readily determine whether training programs are achieving the rights purposes. Moreover, it equips them in detecting the types of changes they should make to improve course design, content and delivery. Most importantly, it tells whether trainees actually acquire the needed knowledge and skills.

However, there are potential threats in using a monitoring system such as (1) the possibility of restricting goals (of education or training) to a set of objectives defined centrally rather than locally, thus measuring the effects of training on a very broad perspectives without giving due credit on individual or group differences; (2) the use of inaccurate measurements leading to erroneous interpretation of results; and (3) inappropriate use or misrepresentation of results to justify maintenance or termination of a certain intervention (Willms, 1992).

The subsequent sections of this chapter will discuss three of the existing frameworks on monitoring the quality of trainings.

Existing Monitoring Systems

The frameworks (1) Kaplan and Norton's Balanced Scorecard, (2) Bushnell's IPO Approach, and (3) Holton's Learning Transfer System Inventory will help conceptualize a monitoring system intended for measuring the quality of trainings.

The Balanced Scorecard

Robert Kaplan and David Norton (1996) developed the Balanced Scorecard (BSC) in response to what they described as outdated and misleading techniques for evaluating organizational performance. Its breakthrough in 1990 paved way to more and more companies, large or small scale, to use the Balanced Scorecard to link and translate organizational mission and strategy into tangible objectives and measures.

There are several derivatives of this framework such as the Learning Scorecard, Training Dashboards, and Scorecard for Skills to name a few. However, this study opted to use the Learning Scorecard which also embodies the four perspectives of the BSC: learning and growth, internal business processes, customer, and financial perspectives as applied to It should be noted, though, that the scorecard operates through the correlation among

these four perspectives. Thus, failure in one area, for instance learning and growth perspectives will greatly affect figures or results of the rest of the elements, or even to a greater extent, the success or failure of an intervention (program or strategy).

The scorecard methodology brings alignment between higher order organization and lower level departmental goals. If the organization already has teams in place, it can check that those efforts are directed at strategic projects. It can serve as a similar role in skill building by providing direction regarding priorities for skill enhancement (Ayers and Bonhag, 1998)[9]. Specifically, companies have the option to use the scorecard to: (1) clarify and gain consensus about a strategy (or a training intervention); (2) communicating interventions or strategies throughout the organization; (3) align departmental and personal goals to the intervention or strategy; (4) link learning or strategic objectives to long-term targets and annual budgets; (5) identify and align strategic initiatives; and (6) conduct periodic performance reviews to learn about and/or improve strategy.

More specifically, the BSC translates mission and strategy into objectives and measures, organized into four different perspectives: learning and growth, internal business process, customer and financial (Kaplan and Norton, 1996).

Illustrated below is an example of the Learning Scorecard which adopts the major principles of the Balanced Scorecard followed by discussions on the subject.

Perspectives	Targets	Initiatives	Status
Learning and Growth			
▪ Number of courses offered ▪ Hours of training completed ▪ Hours of training/employee ▪ Number of course completions ▪ Course completions/employee ▪ Completions/registrations ratio ▪ Course delivery methods (classroom, online, other) ▪ Number of communities of practice ▪ Environment for problem-solving dialogues ▪ Quality and availability of performance support tools ▪ Increased employee satisfaction - with training ▪ Increased employee satisfaction - overall			
Business Process			
▪ Shorter recruiting time ▪ Higher employee retention ▪ Increased production (manufacturing) ▪ Increased product quality (engineering/manufacturing) ▪ Increased number of patents (R&D) ▪ Fewer problem escalation requests (call center)			
Customer			

[9] Retrieved from CGR Management Consultants official website www.ayers-consulting.com last 30 April 2005.

▪ Increased customer satisfaction ▪ Public recognition of company training programs ▪ Public recognition of company work environment			
Financial			
▪ Increased sales productivity ▪ Gross margin improvement ▪ Increased operating income			

Learning Scorecard Perspectives

Learning and Growth. *Given that employees are the basis for innovation, how can we continue to improve and create value?* The Balanced Scorecard identifies the infrastructure that the organization must build on to create long-term growth and improvement. Organizational learning and growth come from three principal sources: people (stakeholders), systems and organizational procedures (process). The financial, customer, and internal business process objectives will typically reveal large gaps between existing capabilities of people, systems, and procedures and what will be required to achieve breakthrough performance. To close these gaps, businesses will have to invest in reskilling employees, enhancing information technology systems and aligning organizational procedures and routines. In brief, three relevant categories are recommended by Kaplan and Norton (1996) to be measured in this aspect: employee capabilities, information technology, and motivation and alignment.

Internal Business Process. *Skilled employees question existing processes, how can we do improve it?* In this aspect, management identifies the critical internal processes in which trained employees must excel at. These processes enable to maximize the benefits attributed from the training including shorter recruiting time, higher employee retention, increased production, increased product quality, increased number of patents, and fewer problem escalation requests. These are just few of the factors in monitoring the internal business process that may affect or are affected by learning (training) interventions in the workplace. The authors suggest measures of internal business process by looking into the innovation and operation processes that bridges the identification of internal and external customer needs and their satisfaction.

Customer Perspective. *How do customers see us? Is there a need to improve products, processes and services for customers?* Kaplan and Norton suggest that organizations must first identify the market segment that they aim to supply. For each segment, they must focus on the type of measure that they use to fit the characteristics of the company. The core outcome measures in this aspect are customer satisfaction, customer retention, new customer acquisition, customer profitability, and market and account share in targeted segments. *Customer satisfaction* can be defined in this study as a degree to which customers are pleased with training products or services as measured by (1) increased training demands or requests from customers, (2) frequency of complaints about the training and (3) the extent to which the training met or exceed

their expectations. By this concept, *customers* shall refer to managers and sponsors who recommend the attendance and participation of employees a formal training course or program. Kaplan and Norton also explained in this perspective the importance of *image and reputation* as a dimension which reflects the intangible factors that attract customers to a company. It enables company to proactively define itself for its customer.

Financial Perspective. *How do our owners/shareholders see us? Happy customers are loyal customers, the basis for long-term financial success.* Financial performance measures indicate whether a company's training strategy, implementation, and execution are contributing to bottom-line improvements. Financial objectives typically relate to profitability-measured, for instance, by operating income, return-on-capital, or more recently added economic value. Consequences of trainings may likewise affect *future decisions* such as choices and course of actions to be made concerning the renewal and creation of trainings, and the use of training outcomes to justify future budgets for training.

Kaplan and Norton (1996) have explained in the detail what the scorecard is, its purposes, methods used and value to organizations. However in its application, it still uses Kirkpatrick's Four Level Evaluation Framework as the basic levels to complete the scorecard. In fact, several frameworks particularly the Scorecard for Skills mention the four perspectives (learning and growth, internal business process, customer and financial) as categories but are still reliant on Kirkpatrick's framework as levels or steps to be taken in completing the monitoring stages of these perspectives. Kirkpatrick's framework is also used to appreciate and realize the importance of properly measuring the impact of workplace learning efforts and for assessors to become familiar with the concepts and different levels involved before they embark further on the scorecard methodology.

In making the decision whether to use this framework as the basis of this paper, it proves to be more logical to account for the advantages as well as disadvantages of this model according to literature. According to Milis and Mercken (2003), the scorecard offers positive contributions to organizations in the following aspects: (1) it forces management to take a broad view on its investments; (2) many evaluation techniques can be integrated into the framework; and (3) the framework can be used for feasibility, follow-up and ex-post evaluation of learning interventions. Furthermore, Brauchle and Schmidt[12] emphasize the influence of the scorecard in ensuring that all critical performance measures are evaluated

[12] Date of publication was not specified in the article. Retrieved 24 April 2005 from Journal of Industrial Teacher Education website: http://scholar.lib.vt.edu.

in addition to Return-on-Investment issues. It also serves as a check and balance such that one area is not overemphasized at the expense of another.

Taken from the website of Balanced Scorecard Survival[13], a list of advantages was identified which mentions: (1) taking these four different perspectives as a whole ensures that senior management is taking a balanced view about the performance of an organization; (2) the short, medium and long-term views are managed in an ongoing, cohesive manner; (3) top level strategy and middle management level actions are clearly connected and appropriately focused; and (4) organization's performance reporting system is more likely focused on things necessary to stay competitive in the long term and realize value for its stakeholders.

Like any other monitoring frameworks, the scorecard may also have some weaknesses. Milis and Mercken (2003) identified some pitfalls: there are no generic (standard) measures that fit all organizations; and perspectives might be too narrow if the scorecard is seen and applied from an HRD point of view. A view that is too narrow can jeopardize the strategic fit.

The creation of a balanced scorecard involves considerable amount of time on the part of employees whose performance will be measured. Defining corporate strategy can involve a substantial amount of time, but the activity that consumes the most time is very likely the selection of appropriate measures for the four perspectives. This is simply due to the fact that there are a large number of potential goals and targets and even more ways to measure them. People are likely to disagree about which objectives to measure and how to measure those objectives, and it will take time before consensus is achieved. Organizational commitment is also important not only in building the BSC but especially in implementing and using it. In fact, a well-designed scorecard may be proven useless until employee participation and commitment are ensured. If measurements are goal-based, there is always a tendency to use too many data gathering techniques. This is a problem because it is very difficult to track a large number of data gathering tools or measures. The subjective measures, by definition, involve somebody's judgment and, therefore, are more prone to error. Consequently, there is a question whether subjective measures should be used and if so how can they be made more reliable (BSC Survival, 2003).

Finally, there is also great deal of challenge associated with any innovative management idea or any effort that seeks to change the status quo in a large organization. It is somewhat difficult and time-consuming to implement a comprehensive BSC system in a

[13] Retrieved from Balanced Scorecard Survival website: www.balancedscorecardsurvival.com last 24 April 2005.

large organization. It requires sustained top-level support and commitment to ramp-up and put the system in place. This is where most of the difficulties and problems emerge. A word of caution, one should not embark on a BSC initiative unless the organization has a high-ranking champion, adequate funding, and is ready to meet the challenges of change (BSC Institute)[14].

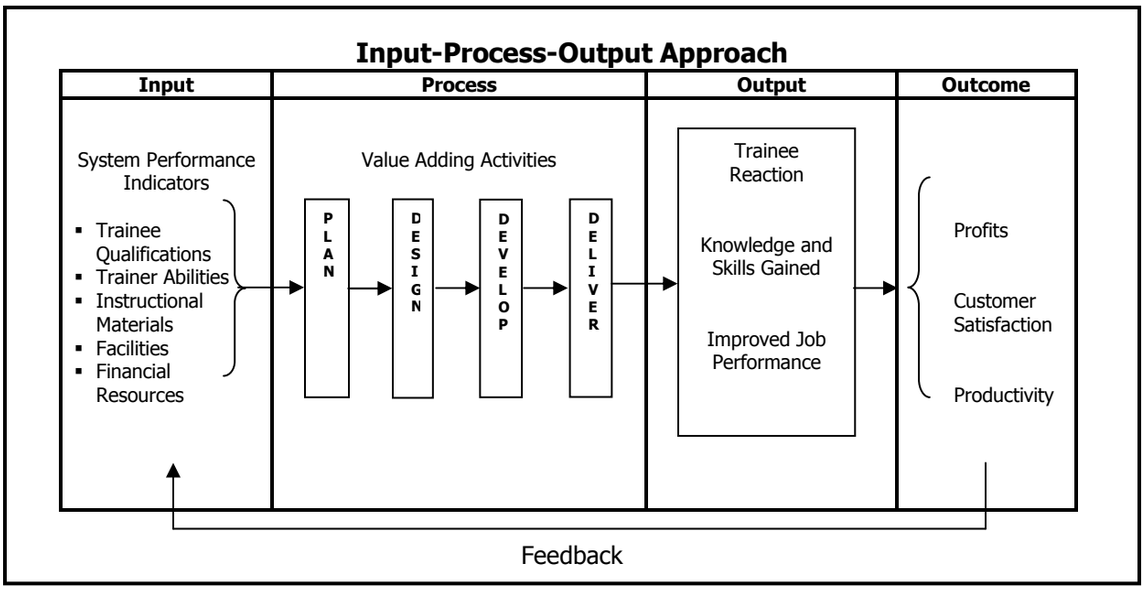
The Input-Process-Output Framework

Another modification of Kirkpatrick's model is the Input-Process-Output (IPO) Approach. The IPO framework was developed by David S. Bushnell. According to Bushnell (1990), the IPO approach to monitoring training enables decision makers to select, from several options, the package that will optimize the overall quality of a training program. It also enables users to detect the types of changes they should make to improve course design, content and delivery. Desimone, Werner and Harris (2002) quote Bushnell by stating that the evaluation measurement can and should occur between each of the stages as well as between the four activities in the process stage to ensure that the program is well designed and meets its objectives.

The Office for Official Publication of the European Communities released a journal on the subject. It mentions, first, *input* as a classification of indicators which consists of everything that is used and processed in obtaining the desired output. It typically consists of outputs of other processes and knowledge, skills, resources and materials (Van den Berghe, 1997). Second, the *process* refers to ways which HRD practitioners use resources as expressed in training design and implementation (Greaney and Kellaghan, 1996). Moreover, it relates inputs and outputs of a system. The difference between process-factors and input- or output-factors may not always be obvious, since, process factors also display input and output characteristics (CEDEFOP, 1999). Finally, *output* refers to all aspects of which the training system is trying to achieve (Greaney and Kellaghan, 1996). It refers short-term benefits or effects of the training (Bushnell, 1990) or all products, derivatives and immediate advantages of the training (CSF, 1999). Finally, when long-term outputs are monitored, it gives rise to the next classification, *outcome or impact*. It represents the consequences of the training beyond its direct and immediate interaction with the addressees or trainees (CSF, 1999).

[14] Retrieved from the official website of the Balanced Scorecard Institute: www.balancedscorecard.org last 03 August 2005.

The conceptual framework of this model is shown below followed by discussions on the four major steps or stages classified by the author (Bushnell, 1990):



Input-Process-Output Stages

Input. At this stage, the elements that could be evaluated in terms of their potential contribution to the overall effectiveness of a training program into categories are trainee qualifications, instructor experience, and the availability of already tested instructional materials, the types of equipment and training activities available, and the training budget. Desimone et al. (2002) also mention that this stage seeks to answer the question, "What goes into the training effort?" This stage includes (1) abilities of trainees, also termed as *trainability*, is a concept that focuses on the trainee's readiness to learn combined with the level of previous knowledge, skills and work performance; (2) *trainer quality* includes academic qualification, experience in the field of training, and possession of trainer competencies. Trainer competencies shall mean the knowledge and varied skills needed by the trainers to design and implement a training programs specifically the ability to clearly communicate knowledge, use of varied instructional techniques, good interpersonal skills and ability to motivate others to learn; (3) *quality of training delivery* which refers to methods, strategies, facilities and activities utilized by the trainer in the implementation of a training program; and (4) *financial resources* which account for financial inputs such as annual financial allocations and actual expenditures from design, delivery and evaluation of trainings.

Process. At the process stage, the evaluator needs to specify value adding factors such as instructional objectives, development and design criteria, and the manner by which

training materials are put together. It is also deemed important at this stage to collect descriptive information regarding the following: (1) *types of trainings* [15] conducted according to purpose (compliance or developmental), source (in-house or outsourced) and/or level (managerial, supervisory or rank and file); (2) *trainees* officially registered to *attend and participate*[16] a training course or program; and (3) Trainees' perception on the *relevance of the training* which considers their view on the trainings according to the relationship between training contents and job context, relationship of trainings to future career developments and the degree of applicability of training skills to job.

Output. This stage deals with the short-term benefits or effects of the training including student reactions to training, knowledge and skills gained as a result of the training, and improved performance on the job. Output stage is somehow comparable to Kirkpatrick's first three levels (Meyer and Elliot, 2003). Output includes concepts such as: (1) trainee satisfaction which refers to the degree or level of meeting trainees' expectations to trainer performance, training contents and delivery. *Trainer performance* is measured through the perception of trainees on how well a trainer has carried out her job and responded to the needs of the trainees during the training delivery. *Training contents* are principles, facts, information, skills which are determined by the subject-matter experts to meet the objectives of training programs. *Training methods* refer to the means and strategies employed by trainers in the learning process for each training course; (2) knowledge and skills acquisition (*learning achievement*) which defines degrees which trainees achieve training the objectives and acquire a certain level of learning consequent to his or her attendance to trainings; and (3) Improved job performance (*learning transfer or application*) as determined by the opportunity of trainees to perform training related knowledge and skills and amount of support from work environment to apply new forms of learning.

Outcome. This refers to the effect of the organization, including profits, productivity and customer satisfaction. Bushnell explains the concepts such as profits, customer

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[15] **Compliance trainings** are those that are required by Philippine Civil Service Code and other government bodies for employment and operational purposes; **developmental trainings** as those that are conducted and/or supervised by the Human Resource management Department of the PNHA for performance improvements, and enhancement of skills, knowledge and work effectiveness other than compliance trainings; **in-house trainings** are trainings designed and implemented by internal training staff of the PNHA; **outsourced trainings** are trainings designed and implemented by external HRD consultants whose services are engaged by the PNHA on a project basis; and under Omnibus Rules Implementing Executive Order No. 292, levels of positions are classified and defined according to the range of salary grades as stipulated in the Salary Standardization Law. Provisions of the said order defines **management Trainings** are those that are conducted for managerial position whose functions are normally considered as policy determining or one whose duties are highly confidential in nature. The term shall include any employee occupying a position with a salary grade ranging from 22 to 27. **Supervisory trainings** refer to those that are conducted to supervisor or any person in the government service with a salary grade raging from 19 to 21. **Rank and File trainings** refer to those that are conducted for employees occupying a position from the lowest salary grade to salary grade 18. **Management Trainings** are those that are conducted for managerial position whose functions are normally considered as policy determining or one whose duties are highly confidential in nature. The term shall include any employee occupying a position with a salary grade ranging from 22 to 27. **Supervisory trainings** refer to those that are conducted to supervisor or any person in the government service with a salary grade raging from 19 to 21. **Rank and File trainings** refer to those that are conducted for employees occupying a position from the lowest salary grade to salary grade 18.

[16] The term shall be classified according to trainees who (1) fully completed the training, (2) partially attended but dropped out at a certain stage of the training on their own volition, and (3) never appeared in the training sessions; all of which have been organized and sponsored by the PNHA.

satisfaction and productivity as outcomes or long-term results of learning interventions such as trainings. Profits may be construed as part and partial of *organizational impact* of trainings, all of which the organization is trying to achieve specifically the frequency of problems/deficiency after the training and contribution of trainings to annual organizational targets. Additionally, this stage considers *work motivation* as an outcome defined as a psychological process that causes the arousal, direction, persistence of voluntary actions of employees after attending the training. It is characterized by, but not limited to, their organizational commitment, frequency of absenteeism and turnover, and willingness to render extra hours at work as a result of the training.

Although this model or approach has been recognized in the field of HRD evaluation, there are limited reviews on its applications. In fact, what was commonly referred to by most of organizations and writers is only Bushnell's article about IPO approach way back in 1990. Why then use this model as a guide or basis in designing a monitoring system?

The IPO approach is more explicitly used and written about in the fields of education, and vocational education and training. This presents an interesting position to test the true value of this model in the field of HRD monitoring. However, educators and administrators of educational systems utilize the IPO approach as a monitoring system than an evaluation strategy, meaning the object of such strategy can cover more than one subject, course, program or a curriculum. Although some authors and educators might argue, it appears that monitoring system is interchangeably used or also referred to as indicator system.

The primary advantage in using this framework as a guide in designing a monitoring system is its focus on the process. Similar to Kirkpatrick's Four Level framework, the IPO approach structured the different indicators according to stages. According to Willi (2003), this approach provides a scaffold for improving instructional processes iteratively[17]. It also explains in simple and understandable forms the number of influential factors in a linear progression of monitoring the effects of trainings. Moreover, the efforts to monitor a number of significant indicators gravitate not only on the outcomes but more importantly it accounts for the contributing elements even before the design of trainings. The processes involved are also monitored such that specific areas for improvements can be identified and given adequate attention or remedial action. This is, however, under the assumption that the monitoring of trainings shall be completed until the stage where results are fedback to

[17] Caroline Willi authored the thesis on Exploring Student Engagement and Collaboration in the Experimental Classroom for the Department of Education in San Diego State University, 2003. She used the IPO approach as the main framework of this paper. Visited last 05 June 2005.

stakeholders. Despite this seemingly linear approach, such as Kirkpatrick and Phillips' frameworks, IPO approach recommends the inclusion of a feedback loop. Reporting and feedback mechanisms are used to inform stakeholders on the effects of a training intervention and the need to take corrective measures to continually improve the effectiveness of trainings.

However, like any other frameworks, the use of IPO approach also has some limitations. The IPO approach is unable to establish a strong correlation between the different stages as mentioned by Desimone et al. (2003). In spite mentioning the contributing elements for the success of a training intervention (such as trainee and trainer abilities, instructional materials and facilities, and training budget), Bushnell failed to integrate needs assessment which the results are normally indicated the basis for the design and development of a training intervention. Additionally, the monitoring process is weakened by its failure or very little emphasis on factors innate to individuals or learners such as motivation and readiness to learn, and enabling factors in the workplace that potentially affect the performance and quality of trainings. Finally, Bushnell mentions about training outcomes or bottom line results in the form of profitability, competitiveness and even survival. However, he was not specific about the method or formula of computing for these. Unlike Phillips in his ROI framework, the formula and processes for computing the ROI of trainings were explicitly described.

In the spirit of fairness, the article referred to in this paper was circulated 15 years ago (1990). Over the years the IPO Approach may (or may not) have updated its underlying principles or conceptual framework to make-up for these shortcomings. If there should be such changes, the researcher recognizes this limitation to obtain the necessary and appropriate materials.

Learning Transfer System Inventory

Finally, one of the more controversial personalities in the field of HRD evaluation is Elwood Holton III. Holton developed the Learning Transfer System Inventory (LTSI) in his efforts to deal with significant factor or elements affecting learning transfer which seemed to be overlooked by previous models particularly Kirkpatrick's Four Level Framework. The LTSI is considerably a refinement and improvement of the Four-Level Evaluation framework. Holton build up this framework from concepts and principles popularized by Kirkpatrick such as learning, behavior (only termed as performance), and results (termed as organizational

results cited in Kirkpatrick's rebuttal to Holton's famous article, "The Flawed Four-Level Evaluation". In the same article, Holton espoused a strong belief that performance improvement will not occur without learning transfer. This is also supported by Kozlowski and Salas (1997), as quoted by Yamnill and McLean (2001), that the acquisition of knowledge, skills, behaviors and attitude through training is of little value if the new characteristics are not generalized to the job setting and are not maintained over time. In other words, training is useless if it cannot be translated into performance. By learning transfer, Holton meant the degree to which trainees apply to their jobs the knowledge, skills, behaviors and attitudes they gained in training. One of the focal points of the monitoring of learning transfer is the investigation of the factors which influence how transfer takes place (Putra, 2004 quoting Holton et al., 1997)[18].

LTSI has been designed to provide information and characteristics of the workplace, training design, content, individual attributes and group variables that can act as either barriers or catalysts to learning transfer. It is based on a conceptual framework that views individual performance improvements from training as a function of four sets of elements: secondary, ability/enabling, motivation and environmental elements. It has also undergone several developmental iterations and research has provided evidence of the instrument's construct and criterion-related validity.[19]

Holton structured the LTSI conceptual framework based on his HRD Research and Evaluation Model (1996). The macrostructure of this model hypothesizes that HRD (or training) outcomes are functions of ability, motivation, environmental and secondary influences at three outcome levels: *learning*, *individual performance* and *organizational results*. These outcomes are defined, respectively, as achievement of the learning outcome desired in a training intervention, change in individual performance as a result of learning being applied on the job, and results at the organizational level as a consequence of change in individual performance. Individual performance is at the core of Holton's transfer of training model. Learning is expected to lead to changes in individual performance when the three primary influences on transfer behavior are at appropriate levels.

The LTSI conceptual framework followed by descriptions of its elements is shown below.

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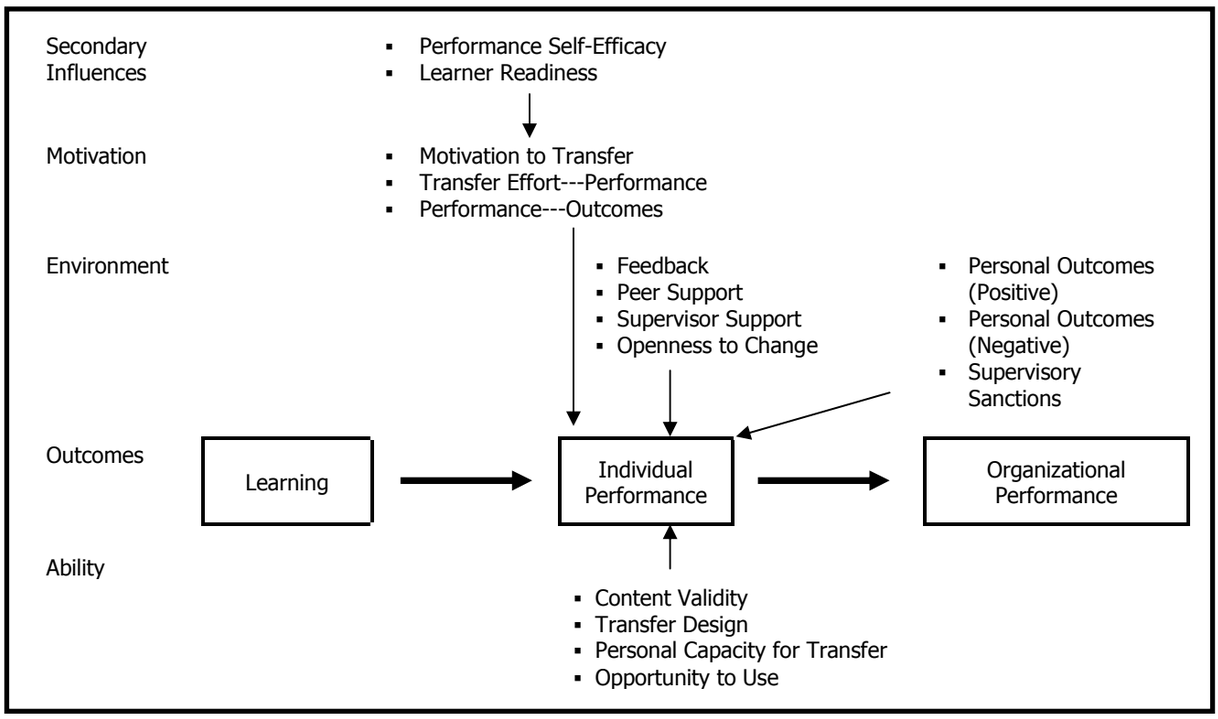
[18] Retrieved from the Journal of the Department of Hospitality and Tourism Management April 2004 Edition through: www.findarticles.com last 04 August 2005.

[19] PACE Learning and Consultancy, whose advocates made partners with Dr. Elwood F. Holton III and Dr. Reid A. Bates, claims that LTSI is currently the only validated instrument available that measures a comprehensive set of learning transfer system factors. Retrieved from PACE Learning and Consultancy official website: www.pacelc.com last 04 August 2005.



Holton, upon writing the article "The Flawed Four-Level Evaluation Model", summarized the domains and elements of the LTSI.

Learning Transfer System Inventory Elements

Ability. The abilities that trainees possess are strongly believed to affect the outcomes of an intervention. Holton mentions that well-known psychologists assert that general cognitive ability has a significant impact on trainee success (Ree and Earls, 1991) and interacts with motivation (Kanfer and Ackerman, 1989) to enhance outcomes. This domain includes perceived content validity, transfer design, personal capacity to transfer and opportunity to use training related knowledge, skills, behavior and attitudes. First, *perceived content validity* refers to the extent to which trainees judge training contents to accurately reflect job requirements. Second, *transfer design* is the degree to which (1) training has been designed and delivered to give trainees the ability to transfer learning to the job, and (2) training instructions match job requirements. Third, *personal capacity for transfer* is the extent to which individuals have time, energy, and mental space in their work lives to make changes required to transfer learning to the job. Lastly, *opportunity to use* is the extent to which trainees are provided with or obtain resources and tasks on the job enabling them to use training on the job.

Motivation. *Motivation to transfer* is defined as the direction, intensity, and persistence of efforts towards utilizing knowledge and skills acquired from the training to the job. There are two elements in this domain. First, *transfer effort--performance expectations* which is described as the extent to which individuals believe that applying knowledge and skills learned from the training will improve their performance, whether an individual believes that investing efforts to utilize new skills has made a difference in the past or will affect future productivity and effectiveness. Second, *performance outcomes--expectations* or expectation that change in job performance will lead to valid outcomes. This scale includes the extent to which organizations demonstrate the link between development, performance, and recognition, clearly articulate performance expectations, recognize and reward individuals when they comply with or exceed performance standards, and create an environment which individuals feel good about performing well.

Work Environment. Research consistently shows that the work environment can be a tremendous barrier to workers using their knowledge and expertise (Holton, 2000 and Tracey et al., 1995). This domain includes scales such as (1) *peer support*, the extent to which peers reinforce and support the use of training to the; (2) *supervisor support*, the extent to which supervisor/managers support and reinforce the use of training to the job; (3) *resistance/openness to change*, the extent to which prevailing group norms are perceived by individuals to resist or discourage the use of knowledge and skills from the training; (4) *personal outcomes*, the application or non-application of training-related skill and knowledge comes in positive (such as increased productivity, personal satisfaction, higher respect, salary and opportunity to advance) and negative (such as reprimand, peer resentment, and heavy workloads but not getting any raise) forms; (5) and *supervisor sanctions*, extent to which individuals perceive negative responses from supervisors/managers when applying knowledge and skills from training.

Secondary Influences. Finally, Holton states that there two elements that affect motivation, namely: (1) *performance self-efficacy* refers to the extent to which prevailing group norms are perceived by individuals to resist or discourage the use of knowledge and skills acquired from the training; and (2) *learner readiness* is the degree to which individuals are prepared to enter and participate in training.

The LTSI made its mark in the fields of education and HRD as a fully specified and researched evaluation and monitoring model. It appears to be useful in the design of a monitoring system for trainings in the following aspects: First, individual is central to the whole monitoring system. The model comprehensively integrates all training-related elements that potentially affect improvements in individual performance. It emphasizes how

learning affects individual performance as influenced a number of relevant factors. Second, the model is well supported by research or academic inquiries, as claimed by Holton. This increases the reliability, validity and confidence levels when using this model as the primary guide in developing a monitoring system. Third, there is a strong correlation between and among the scales of the LTSI, thus providing clearer directions in designing a framework based on this model. Lastly, LTSI focuses on the transfer of learning, a more constructive and functional goal in monitoring the effects of training interventions. Training is useless if it cannot be translated into performance, as the ultimate end of trainings is improving organizational performance.

The above-indicated issues are just few of the advantages of using the LTSI; however, it also has some limitations as summarized by Yamnill and McLean (2001). First, Holton suggests that individual performance is at the core of the learning LTSI. It also emphasized three factors affecting training implementation and transfer; however, this model did not explain in the conceptual framework (1) why people desire to change their performance after attending the training, (2) what training designs contribute to people's ability to transfer learning successfully, and (3) what kind of organizational environment supports people as they apply trainings to their jobs. Perhaps, this is easily remedied by exploring and studying different theories of evaluation and performance to understand the model. Time, resource and knowledge on the subject are essential requirements for designers and implementers of monitoring systems to address this issue. Second, According to Holton (1996), one of the causes of failure to transfer is that training designs rarely provide for transfer of learning. Then again, LTSI does not provide guidelines to explain what constitutes appropriate transfer design. Third, it would take considerable time and efforts on the part of implementers to understand much more to implement what is described in the conceptual framework. Implementing some measures with a degree of uncertainty proves to be more catastrophic than not monitoring at all. Fourth, Considerable planning is also required to identify relevant factors, processes, levels and linkages of the target training, thus posing more of a challenge than a helpful guide to practitioners. Finally, in his rejoinder to Holton's offer for a more appropriate model, Kirkpatrick asserted that practitioners need a simple and practical guide in conducting evaluation (or monitoring). Although LTSI appears to be a well-researched model, scholarly research does not secure a highly effective position in practice, depending of course on how far an organization would go to measure impact of training using this model. Perhaps, it would be

more ideal to select specific measures that will gauge and monitor impact of training according to targeted changes (or objectives).

After going through an extensive literature review on the models of monitoring system and other supporting frameworks, it has been observed that there are still more monitoring frameworks in the fields of both education and HRD waiting to be explored. Identifying the roots and development of each model or taxonomy, despite considerable significance, may be too challenging for the researcher specifically under a limited time. Perhaps, a more attainable undertaking is to study and adopt the significance and suitability of these frameworks to the organization under study. This entails a modification of certain aspects of the frameworks to suit the requirements of the study. This is under the premise that no known law can proscribe the modification of such frameworks given that no two organizations can implement a framework with exactly the same processes and results.

The discussion shall proceed with the exploration and understanding of topics and indicators as later on used in this study. The next section shall address the object of monitoring systems or simply what needs to be monitored in this study.

Topics

In most studies, indicators are generally used to represent quantitative measures of a monitoring system. However, in this study, topics are identified first and considered as general classifications of indicators. Topics to be monitored are defined as all encompassing factors and issues within a training system that provide information in tracking the status, quality, and strengths and weaknesses of the training system of the PNHA. Indicators shall, however, represent the different measures of each topic in monitoring the quality of trainings.

Indicators

Prior to classifying the indicators of the proposed monitoring system for trainings, it is deemed necessary to discuss the definition, purposes, objectives and characteristics of a good indicator.

Definition

Perhaps the most mentioned in this study is the concept of indicators. However, there is no universally agreed definition of indicators as they are currently used according to the CEDEFOP Report (1999). In their attempt to arrive at a specific definition, they came up

with indicators as quantitative measures which include all types of statistical tables (and their graphical derivatives) about the measurable attributes of the system, an organization, an individual, a product or service: average, frequency counts, totals, median, upper quartile, cross-tabulation, etc. Some may consider indicators as nothing more than a signal that a threshold has or has not been reached. Indicators are meant to offer over-all information about the state of a system, an organization, a product or service. They provide useful information within a minimum range of figures. They are meant to facilitate comparison of (1) purposes-the changing value of the indicator over time, (2) comparison between different units, and (3) need to measure performance based on standards.

Nijhof et al. (1996) also define indicators as quantitative measure of units in an organization which are used to provide information about the effects of HRD policies and quality-control efforts of an organization. It derives its meaning from its trend overtime, from its variation with a sample, or from its comparison to specific standards (Willms, 1992). Indicators are also described as policy-relevant statistics which contain information about the status, quality or performance of a training system (Greanney and Kellaghan, 1996).

Rationale of Indicators

The CEDEFOP Report (1999) mentioned the following objectives in the use of indicators:

- A need for owners, sponsors and providers of massive resources to obtain viable picture of a system.
- An internal drive emerging from within the organization that sees the need for more modern and professional management approaches including measurements.
- Stakeholders will seek to define indicators that reflect as exactly as possible state of the system.

Furthermore, Nijhof et al. (1992) outlined the objectives of using indicators specifically in monitoring the quality of training:

- Deliver information to (top)management for making policies decision related to training
- Inform members of the company about quantitative aspects of the training function
- Diagnose training functions

General Characteristics of a Good Indicator

After contextualizing the term indicator, it is important to determine the most commonly referred characteristics of good indicators. Fitz-Gibbon (1996) summarized the characteristics of a good indicator for a monitoring system. It was mentioned that an indicator should be: relevant, informative, acceptable, beneficial and cost-effective to stakeholders. Moreover, Greaney and Kellaghan (1996) quoting Owen et al. (1995) further mention some of these characteristics: (1) quantifiable, that is, it represents some aspects of the (training) system in numerical forms; (2) particular value of an indicator applies to particular point or period of time; (3) a statistic qualifies as an indicator only when there is a standard or criterion against which it can be judged; (4) provides information about aspects of the (training) system that policy-makers, practitioners and participants regard as important; (5) realistic in the sense that it is based on information collected with due regard to financial and other constraints; (6) describes conditions amenable to improvements; (7) information for indicators is collected frequently enough to allow change to be monitored; (8) indicators allow an examination of distributions among subpopulations of interest; and (9) indicators should reflect the multi-faceted nature of the (training) system in all its complexity and comprehensive enough to describe the important dimensions of the system.

Right after the literature review, an inventory is conducted to summarize the topics and corresponding indicators discussed in this chapter. The inventory, also termed as pool of indicators, is used in structuring the research instrument (questionnaire) attached as Annex C. The next chapter will further discuss the development of the research questionnaire.

Chapter III
RESEARCH METHODS AND PROCEDURES

This chapter presents the design of the study and framework to be used in data gathering, development of the research instrument and procedures to be followed in gathering data, and selection and distribution of research respondents.

Design

This research primarily involves a policy-making process through building consensus from all persons involved in the training system. In search for the most suitable research design for decision-making, the following factors are considered: (1) a need for a well-balanced and speedy representation in lieu of lengthy brainstorming and committee meetings; (2) enables respondents to preserve anonymity; (3) conforms to costs, time and proximity requirements; and (4) implementation must be manageable. After deliberate research on previous methods used in similar studies, the Policy Delphi appears to be responsive to these issues. In fact, this method has earned its popularity in formal organizations particularly used as measurement of opinions among involved personalities, intuitive forecast in the absence of empirical data or well-defined policy alternatives, and most specifically in building consensus or arriving at a decision on certain policies and issues at work. A Policy Delphi Procedure is a systematic method of obtaining, exchanging and developing informed opinion on impending issues (Turoff, 1975), expressly used in the study to identify and assess the usefulness of topics and indicators in monitoring the quality of trainings. According to Rayens and Hahn (2000), this method includes a multistage process involving the initial measurement of opinions, followed by data analysis, design of a new questionnaire, and second stage of measurement of opinions. This study also adopts a two-stage application of Policy Delphi Procedure. First, questionnaires are distributed to respondents containing a pool of topics and indicators based from established frameworks in the field of HRD monitoring and existing measures within the target organizations. This stage is considered as the initial measurement of perception of respondents. In the second stage, respondents are given feedback on the initial results and asked to go over the questionnaires as an opportunity to reconsider their opinions. Due to time constraints, however, this paper shall only cover and put a great deal of attention on the first stage. Second stage will be dealt with under the discretion of the host organization whether to pursue or put aside the data acquired through the Policy Delphi Procedure.

The design of a monitoring system commenced through the review of leading frameworks such as the Balanced Scorecard, IPO Approach and LTSI Model. The decision in selecting these frameworks as a guide in this study is largely determined by pragmatic reasons and according to the researcher's knowledge on what elements are helpful in the development of a monitoring system strategically fit to the needs of the target organization. Perhaps a more valid consideration is the number of research that supports the underlying principles of these frameworks. Research-based findings increase the validity and reliability of the said frameworks. Moreover, the inventory of topics and indicators is conducted under two premises: (1) they must provide insights and information on the quality of training, and (2) reflect organizational goals pertaining to training. A pool of topics and corresponding indicators is created based on extensive literature review and existing measures and quality standards of trainings within the organization prior to the design and implementation of the Policy Delphi Procedure. Topics are then analyzed and operationally defined, after which some were eliminated due to overlapping or duplication. Following the selection of topics is the identification of corresponding data gathering measures or indicators. Indicators refer to the quantitative measurements of each topic representing the status, quality, and strengths and weaknesses of the PNHA's training system. Indicators are likewise analyzed and operationally defined to find out whether an indicator truly represents a specific topic.

Research Instruments

This section provides the development of the research instrument, a questionnaire, and its structure and contributing elements.

Due to time constraints and geographical difference between the researcher (Netherlands) and research locale (Philippines), a questionnaire is utilized to gather the necessary information. The development of the questionnaire begins with an inventory of different issues, metrics and topics of monitoring systems explored in Chapter II. The inventory of topics and indicators are organized in the questionnaire shown in Annex C subject to validation of respondents in the data collection process. For purposes of emphasizing the meaning and distinction of the words topics and indicators, topics shall be referred to as all factors and issues within a training system that provide information in tracking the status, quality, and strengths and weaknesses of the training system of the PNHA. Whereas, indicators shall be defined as quantitative measures or units used to provide information about significant aspects or features of each topic. Selection of the most suitable criteria in assessing the usefulness of topics and indicators is based from the

established characteristics of a good indicator specified in Chapter II. Since there is a large number of topics and indicators to be assessed under a limited time, only five criteria were initially considered. The selection is based from the discussions with the CTD staff on the decisive factors most valued by the target organization on the basis of ensuring the right topics and indicators in monitoring the quality of trainings. The relevance, priority and effectiveness criteria refer to more qualitative descriptions appropriate in assessing topic for the proposed monitoring system. On the other hand, appropriateness and complexity reflect more quantitative measures of monitoring the quality of trainings.

The questionnaire is structured in two phases: one for the collection of information on the usefulness of topics and another for the indicators of each topic for the monitoring of the quality of in-house trainings.

Questionnaire I is focused on measuring the usefulness of the topics in monitoring the quality of trainings. There are three criteria in assessing these topics:

(1) *Relevance*. This refers to the extent to which a topic is able to provide information on the monitoring of the quality of trainings.

(2) *Priority*. A number of topics are undoubtedly useful and beneficial to the monitoring of corporate trainings. However, some topics are considered to be more valuable to the organization based on goals and priorities.

(3) *Effectiveness*. In identifying the effectiveness of a topic, it must be known if the topic truly describes and determines the central features of the training system being monitored.

The topics that were assessed in the first questionnaire requires gathering of information. Below are the criteria which the gathering of information for a particular topic is based from:

(1) *Appropriateness*. This refers to the extent to which an indicator truly represents the topics or concepts being measured.

(2) *Data gathering process*. This criterion refers to the *level of complexity* of the needed data gathering process for each indicator. Indicators may represent measures of concrete or abstract information. To help respondents decide on this criterion, examples of data gathering methods are also shown in Questionnaire II (Annex A).

To ensure clarity and validity of the research instrument, questionnaires were subjected for a validity test to 10 HRMD staff who are not direct participants of the study. Several adjustments were then made to this effect. Finally, questionnaires were distributed

to respondents who were asked to read the items in the questionnaires while they reflect, analyze and form an opinion by assigning a specific value based on a four-point Likert Scale, 1 having the least and 4 the highest value respondents can assign each item according to the stated criteria. Since the instrument is focused on the collection of opinions, respondents were given an opportunity to offer suggestions on other relevant topics and indicators the monitoring system for trainings which are not included in the questionnaires.

Data Gathering Procedure

A letter was sent to the HRMD manager seeking permission to conduct this study and have access to all relevant information (refer to Annex B). A memorandum was then circulated to chosen respondents (refer to Annex C). The researcher tapped on CTD staff to distribute and retrieve questionnaires from respondents. CTD was already apprised of the nature and background of the study enabling them to explain to respondents in case they have questions or problems about the data gathering instrument and/or process. In the first stage of the data gathering process, respondents were given a total of 7 working days to answer the questionnaires and offer suggestions on other potential topics and indicators for the proposed monitoring system. The initial data collected were tabulated and analyzed. Initial results are then fed back to respondents along with the second stage data collection to validate their opinions. All communications are transmitted via electronic mail.

Research Respondents

The Balanced Scorecard Institute gives insights to the challenges in designing and implementing a monitoring system. More specifically, organizations should identify the people in the right posts who are supportive and committed in putting the monitoring system in place.

The search begins by looking into the four organizational units that actively participate in the development, implementation and evaluation of trainings, namely: Career and Training Division (CTD)[20], Livelihood Development Department (LDD)[21], Community Relations and Information Operations Department (CRIOD)[22] and Corporate Operations

[20] CTD provides services in terms of planning, implementation and/or coordination, monitoring and evaluation of PNHA wide training, scholarship and other developmental intervention schemes and opportunities.
[21] LDD provides overall direction and exercises control over the planning and implementation of all livelihood development activities in the project sites of the PNHA.
[22] CRIOD supervises, coordinates and executes all plans and projects relating to essential community based services in the project areas and provide lines of communication and coordination between the community and the PNHA for a more effective implementation of projects.

Systems Office (COSO)[23]. This study aims to provide a balanced representation between and among the different levels of the organization specifically from those who have direct involvement to in-house trainings in the year 2004 and onwards, thus respondents (also referred to as stakeholders) are typified as: (1) customers or managers who hold key positions to recommend and approve trainings; (2) trainers who are responsible for the development, implementation and evaluation of trainings; and (3) trainees who are the objects of training interventions.

Table 1.1 presents the distribution of employees of the four participating organizational units in this study. However, respondents are selected from the employee data base according to the following criteria:

1. Respondents must have vested interest in the monitoring of trainings whether as a designer, facilitator, evaluator, decision-maker or participant of trainings.
2. Respondents must have direct involvement and influence to trainings.
3. Respondents must be aware of how the training system of PNHA is organized and managed.
4. Respondents must be familiar with the terms and concepts used in this study.
5. Respondents must be willing to participate all throughout the study.

Table 1.1 Pools of Potential Respondents

Organizational Units	Managers	Trainers	Trainees	Total
Career and Training Division	1	2	6	9
Livelihood Development Department	2	2	13	17
Community Relations and Information Department	3	3	10	16
Corporate Operations Systems Office	2	2	20	24
TOTAL	8	9	49	**66**

After going through the selection process, a total of 30 respondents were identified using the PNHA's employee data base and were given adequate background about the study and the roles which they will portray. Table 1.2 illustrates the distribution of research respondents.

[23] COSO provides adequate staff assistance in terms of effective integration of performance evaluation, collection, collation and analysis of housing data and the formulation, review and approval of systems, procedures and performance standards at a corporate level.

Table 1.2 Selected Research Respondents

Organizational Units	Managers	Trainers	Trainees	Total
Career and Training Division	1	2	4	7
Livelihood Development Department	2	2	3	7
Community Relations and Information Operations Department	3	2	4	9
Corporate Operations Systems Office	2	2	3	7
TOTAL	8	8	14	**30**

Two weeks after the initial distribution of questionnaires for the data gathering process, the CTD staff has retrieved 26 out of 30 questionnaires distributed to the respondents resulting in a return rate of 86.7%.

Scoring and Analysis of Data

Following the retrieval of the questionnaires are the tabulation and statistical treatment of data. The descriptive statistical summaries and comparison of means is organized per criterion of topics and indicators. Topics are analyzed according to (1) relevance, (2) priority, and (3) effectiveness to the proposed monitoring system. Subsequently, indicators will be analyzed according to (1) appropriateness and (2) complexity of data gathering process for the topics which it intends to measure information for.

For each topic, descriptive statistical summaries will be provided highlighting frequency distribution, mean, standard deviation and qualitative description. *Frequency distribution* is used to arrange and show the number of response for the scale of each topic and indicator. The *mean* then is computed to get the central tendency of a distribution. It also describes whether a topic or indicator is:

Table 1.3 Scales for Relevance, Priority, Effectiveness and Appropriateness Criteria

Range of Means	Qualitative Description
1.00-1.75	Not Relevant/Priority/Effective/Appropriate
1.76-2.50	Low Relevance/Priority Level/Effectiveness/Appropriateness
2.51-3.25	Average Relevance/Priority Level/Effectiveness/Appropriateness
3.26-4.00	High Relevance/Priority Level/Effectiveness/Appropriateness

However, for the complexity of data gathering process criterion, the 4-point Likert scale is conversely structured compared to the values used by the preceding criteria. Thus,

another set of scale is created to express whether the data gathering process required of an indicator is:

Table 1.4 Scales for Complexity of Data Gathering Process Criteria

Range of Means	Qualitative Description
1.00-1.75	Manageable
1.76-2.50	Slightly Complex
2.51-3.25	Complex
3.26-4.00	Highly Complex

The calculated means for each topic or indicator are then grouped according to participating organizational units (LDD, CRIOD, COSO and CTD) and stakeholders of the PNHA training system (managers, trainers and trainees). The comparison of means using ANOVA (analysis of variance) is used to measure whether there is a difference in opinion among respondents from different groups.

Finally, to assess whether a topic or indicator is useful in monitoring the quality of trainings, the collective perception of respondents expressed by its *means* should satisfy the minimum scores for the *relevance*, *priority*, *effectiveness* and a*ppropriateness* criteria ranging from 2.51-4.00 (Average to High), otherwise, a topic or indicator will be eliminated from the inventory. However, regardless of the score for complexity of data gathering process, topics and indicators which satisfy the four other criteria will remain in the inventory. This is under the premise that complexity of data gathering process, as a criterion, only gives the stakeholders an insight on the level or amount of efforts required in measuring the quality of trainings. It is not necessary to discard an *appropriate* indicator simply because it requires a complex process. For purposes of establishing an acceptable standard for the complexity criterion, ideal scores should be within the range of 1.00-3.25 (Manageable to Complex).

The summary of each topics and corresponding indicators including their respective qualitative descriptions for all criteria are shown in the next chapter.

Chapter IV
TABULATION AND ANALYSIS OF RESULTS

This chapter presents the tabulation, statistical analysis and interpretation of data acquired from the data collection efforts in this study. The presentation of results will follow a succession of *topics* according to relevance, priority, and effectiveness criteria; and *indicators* according to appropriateness and complexity of data gathering process criteria. For each criterion, a summary is provided first, to be succeeded by the analysis of variance among respondents grouped into (1) organizational units and (2) roles they portray as stakeholders. Finally, comments and suggestions from respondents will also be shown below.

PROPOSED TOPICS OF THE MONITORING SYSTEM

This section shows the tabulation of data and statistical analysis of results for the *topics* listed in Questionnaire I. Topics are assessed according to *relevance*, *priority* and *effectiveness* criteria. For each criterion, topics are assessed by respondents grouped according to *organizational units* they belong to and their role as *stakeholders* of the PNHA training system. Possible significant difference in perception among groups of respondents is also determined and presented below.

RELEVANCE CRITERION

In the instrument, the relevance criterion is used to measure the extent to which a topic is able to provide information in monitoring the quality of trainings.

Table 2.1 below provides the statistical summary for relevance criterion including frequency distribution, mean and standard deviation for each topic. Based on the scales shown in Table 1.3, the range of means for all the topics is from 3.038 (lowest) to 3.654 (highest), which shows that respondents generally perceive the topics to be relevant in monitoring the quality of trainings. At a scale of 1-4, the variation of response (or opinion) respondents across all topics is ranging from.629 (lowest) for *organizational impact of trainings* to 0.981 (highest) for *CTD image and reputation*.

Table 2.1 Descriptive Statistical Summary for Relevance Criterion

TOPIC	Frequency Distribution Scale				Mean	SD	Qualitative Description
	1	2	3	4			
Trainings Based on Needs Assessment	1	5	10	10	3.115	0.864	Average
Financial Resources	1	3	9	13	3.308	0.838	High
Types of Trainings	0	3	10	13	3.385	0.697	High
Distribution of Trainees	1	6	8	11	3.115	0.909	Average
Trainability of Trainees	0	4	7	15	3.423	0.758	High
Quality of Trainers	2	2	9	13	3.269	0.919	High
Relevance of Training	2	3	7	14	3.269	0.962	High
Quality of Training Delivery	1	2	7	16	3.462	0.811	High
Trainee Attendance	1	5	12	8	3.038	0.824	Average
Trainee Satisfaction	0	1	9	16	3.577	0.578	High
Learning Achievement	1	3	5	17	3.462	0.859	High
Learning Application	0	4	4	18	3.538	0.761	High
Motivation After Training	0	3	7	16	3.500	0.707	High
Organizational Impact of Trainings	0	2	5	19	3.654	0.629	High
Customer Satisfaction	1	1	11	13	3.385	0.752	High
HRMD Decisions as a Result of Trainings	1	3	7	15	3.385	0.852	High
CTD Image And Reputation	3	1	10	12	3.192	0.981	Average

As mentioned in the data gathering procedure, respondents are grouped by organizational units, namely: LDD, CRIOD, COSO and HRMD. In **Table 2.2**, the range of means from 2.667 to 4.000 indicates that respondents distributed by organizational units generally perceive the relevance of seventeen (17) topics to the monitoring of performance and quality of trainings. Topics such as (1) *HRMD decisions as a result of trainings* and (2) *CTD image and reputation* have the highest standard deviation of 0.428; and conversely, 0.158 for *training based on needs assessment*.

The analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to organizational units on the relevance of topics in monitoring the quality of trainings.

Table 2.2 Analysis of Variance for Relevance Criterion by Organizational Unit

TOPIC	MEANS				SD	P-value	Significance
	LDD	CRIOD	COSO	HRMD			
Trainings based on needs assessment	3.333	3.000	3.000	3.143	0.158	0.904	not significant
Financial Resources	3.833	3.333	2.857	3.286	0.400	0.226	not significant
Types of trainings	3.500	3.667	3.286	3.143	0.231	0.572	not significant
Distribution of trainees	3.333	3.167	2.857	3.143	0.198	0.836	not significant
Trainability of trainees	3.000	3.500	3.571	3.571	0.276	0.505	not significant
Quality of trainers	2.833	3.333	3.571	3.286	0.308	0.570	not significant
Relevance of training	2.833	3.167	3.571	3.429	0.324	0.561	not significant
Quality of training delivery	3.667	3.667	3.429	3.143	0.249	0.629	not significant

Trainee attendance	2.667	3.000	3.143	3.286	0.265	0.603	not significant
Trainee satisfaction	3.333	3.500	3.714	3.714	0.185	0.606	not significant
Learning achievement	2.833	3.500	3.714	3.714	0.417	0.223	not significant
Learning application	3.333	3.500	3.571	3.714	0.158	0.857	not significant
Motivation after training	3.333	3.333	3.571	3.714	0.188	0.734	not significant
Organizational impact of trainings	3.333	3.333	3.857	4.000	0.349	0.105	not significant
Customer satisfaction	2.833	3.500	3.571	3.571	0.359	0.244	not significant
HRMD decisions as a result of trainings	2.833	3.500	3.286	3.857	0.428	0.182	not significant
CTD Image and reputation	2.667	3.167	3.143	3.714	0.428	0.304	not significant

In **Table 2.3**, the range of means from 2.875 to 3.800 indicates that respondents distributed according to their roles as stakeholders generally perceive the relevance of all the topics in monitoring the quality of trainings. The topic *HRMD decision as a result of trainings* has the highest standard deviation of 0.321; and conversely the lowest at 0.043 for *organizational impact of trainings*.

The analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to their roles as stakeholders on the relevance of topics in monitoring the quality of trainings.

Table 2.3 Analysis of Variance for Relevance Criterion by Stakeholders

TOPIC	MEANS			SD	P-value	Significance
	Managers	Trainers	Trainees			
Trainings based on needs assessment	3.125	2.875	3.300	0.214	0.603	not significant
Financial Resources	3.000	3.625	3.300	0.313	0.342	not significant
Types of trainings	3.500	3.500	3.200	0.173	0.585	not significant
Distribution of trainees	2.875	3.125	3.300	0.214	0.633	not significant
Trainability of trainees	3.250	3.625	3.400	0.189	0.627	not significant
Quality of trainers	3.500	3.250	3.100	0.202	0.673	not significant
Relevance of training	3.500	3.125	3.200	0.198	0.724	not significant
Quality of training delivery	3.500	3.500	3.400	0.058	0.958	not significant
Trainee attendance	3.125	3.000	3.000	0.072	0.943	not significant
Trainee satisfaction	3.500	3.375	3.800	0.218	0.281	not significant
Learning achievement	3.625	3.125	3.600	0.282	0.429	not significant
Learning application	3.500	3.500	3.600	0.058	0.952	not significant
motivation after training	3.625	3.500	3.400	0.113	0.811	not significant
Organizational impact of trainings	3.625	3.625	3.700	0.043	0.960	not significant
Customer satisfaction	3.500	3.250	3.400	0.126	0.812	not significant
HRMD decisions as a result of trainings	3.500	3.000	3.600	0.321	0.311	not significant
CTD Image and reputation	2.875	3.125	3.500	0.315	0.411	not significant

PRIORITY CRITERION

In the instrument, priority criterion is used to measure the value of each topic to the design of monitoring system based on organizational goals and priorities.

Table 3.1 provides a statistical summary for priority criterion including frequency distribution, mean and standard deviation for each topic. Based on the scales shown in Table 1.3, the range of means for all the topics assessed is from 2.846 (lowest) for *trainings based on needs assessment* to 3.500 (highest) for *trainee satisfaction* and *learning application*, which shows that respondents generally perceive these topics to be an organizational priority. This specifically implies that among the topics, respondents perceive indicators for learning transfer to be of high priority levels in monitoring the quality of trainings. At a scale of 1-4, the variation of response (or opinion) respondents across all topics for priority criterion is ranging from 0.648 (lowest) for *trainee satisfaction* to 0.999 (highest) for *CTD image and reputation*.

Table 3.1 Descriptive Statistical Summary for Priority Criterion

TOPIC	Frequency Distribution Scale				Mean	SD	Qualitative Description
	1	2	3	4			
Trainings based on needs assessment	2	7	10	7	2.846	0.925	Average
Financial Resources	1	4	12	9	3.115	0.816	Average
Types of trainings	1	2	12	11	3.269	0.778	High
Distribution of trainees	1	6	8	11	3.115	0.909	Average
Trainability of trainees	0	6	9	11	3.192	0.801	Average
Quality of trainers	1	2	12	11	3.269	0.778	High
Relevance of training	2	2	13	9	3.115	0.864	Average
Quality of training delivery	2	3	9	12	3.192	0.939	Average
Trainee attendance	1	6	14	5	2.885	0.766	Average
Trainee satisfaction	0	2	9	15	3.500	0.648	High
Learning achievement	1	4	6	15	3.346	0.892	High
Learning application	0	4	5	17	3.500	0.762	High
Motivation after training	0	4	7	15	3.423	0.758	High
Organizational impact of trainings	0	4	7	15	3.423	0.758	High
Customer satisfaction	3	3	12	8	2.962	0.958	High
HRMD decisions as a result of trainings	2	3	9	12	3.192	0.939	High
CTD Image and reputation	3	4	0	9	2.962	0.999	High

In **Table 3.2**, at a mean of 2.500, LDD perceives the gathering of information on *trainee attendance* to be of low level priority in monitoring the quality of trainings. However, the rest of the means ranging from 2.500 to 3.857 indicates that respondents distributed by organizational unit generally perceive the topics to have average to high priority levels in monitoring the quality of trainings. The topic *learning achievement* has the highest standard deviation of 0.464; and conversely, 0.076 for *financial resources*.

The analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to organizational units on the priority level of topics in monitoring the quality of trainings.

Table 3.2 Analysis of Variance for Priority Criterion by Organizational Unit

TOPIC	MEAN				SD	P-value	Significance
	LDD	CRIOD	COSO	HRMD			
Trainings based on needs assessment	3.333	3.000	3.286	2.857	0.228	0.744	Not significant
Financial Resources	3.000	3.167	3.143	3.143	0.076	0.986	Not significant
Types of trainings	3.500	3.500	3.000	3.143	0.254	0.582	Not significant
Distribution of trainees	3.333	3.333	2.714	3.143	0.292	0.586	Not significant
Trainability of trainees	3.000	3.167	3.143	3.429	0.179	0.824	Not significant
Quality of trainers	3.167	3.000	3.571	3.286	0.241	0.623	Not significant
Relevance of training	2.833	3.167	3.143	3.286	0.193	0.835	Not significant
Quality of training delivery	3.333	3.333	2.857	3.286	0.231	0.768	Not significant
Trainee attendance	2.500	3.000	2.857	3.143	0.276	0.508	Not significant
Trainee satisfaction	3.167	3.333	3.857	3.571	0.300	0.248	Not significant
Learning achievement	2.667	3.333	3.571	3.714	0.464	0.161	Not significant
Learning application	3.167	3.333	3.571	3.857	0.300	0.405	Not significant
motivation after training	3.333	3.333	3.286	3.714	0.200	0.723	Not significant
Organizational impact of trainings	3.333	3.167	3.571	3.571	0.198	0.751	Not significant
Customer satisfaction	2.667	3.500	2.714	3.000	0.383	0.421	Not significant
HRMD decisions as a result of trainings	2.833	3.000	3.429	3.429	0.303	0.596	Not significant
CTD Image and reputation	2.667	3.000	3.000	3.143	0.202	0.872	Not significant

In **Table 3.3**, the range of means from 2.750 to 3.625 indicates that respondents distributed according to their roles as stakeholders generally perceive the topics to have average to high priority levels. More specifically, stakeholders agree that topics (1) *trainee satisfaction,* (2) *learning application,* (3) *motivation after training,* and (4) *organizational impact of trainings* to be of high priority level in monitoring the quality of trainings.

The analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to their roles as stakeholders on the priority level of topics in monitoring the quality of trainings.

Table 3.3 Analysis of Variance for Priority Criterion by Stakeholders

TOPIC	MEANS			SD	P-value	Significance
	Managers	Trainers	Trainees			
Trainings based on needs assessment	2.875	2.750	2.900	0.080	0.943	not significant
Financial Resources	3.125	3.125	3.000	0.072	0.932	not significant
Types of trainings	3.125	3.500	3.200	0.198	0.608	not significant
Distribution of trainees	3.000	3.250	3.100	0.126	0.867	not significant
Trainability of trainees	2.875	3.625	3.100	0.385	0.157	not significant
Quality of trainers	3.250	3.625	3.000	0.315	0.245	not significant
Relevance of training	3.375	3.125	2.900	0.238	0.529	not significant
Quality of training delivery	3.000	3.250	3.300	0.161	0.794	not significant

Trainee attendance	3.000	2.875	2.800	0.101	0.868	not significant
Trainee satisfaction	3.625	3.375	3.500	0.125	0.758	not significant
Learning achievement	3.375	3.125	3.500	0.191	0.689	not significant
Learning application	3.375	3.500	3.600	0.113	0.835	not significant
motivation after training	3.500	3.500	3.300	0.115	0.820	not significant
Organizational impact of trainings	3.375	3.625	3.300	0.170	0.667	not significant
Customer satisfaction	2.875	3.125	3.000	0.125	0.877	not significant
HRMD decisions as a result of trainings	3.125	3.125	3.300	0.101	0.906	not significant
CTD Image and reputation	2.750	3.125	3.000	0.191	0.761	not significant

EFFECTIVENESS CRITERION

In the instrument, effectiveness criterion measures the extent to which topics truly describe and determine the central features of the training system being monitored.

Table 4.1 provides a statistical summary for effectiveness criterion including frequency distribution, mean and standard deviation for each topic. The range of means from 3.00 (lowest) for (1) *distribution of trainees* and *(*2) *trainee attendance* to 3.583 (highest) for (1)*trainee satisfaction*, (2) *learning application*, and (3) *motivation after training*, indicates that respondents generally perceive the topics to be effective in describing and determining the central features of the training system being monitored. Moreover, at a scale of 1-4, the variation of response (or opinion) of respondents on the effectiveness of topics is ranging from 0.508 (lowest) for *trainee satisfaction* to 1.058 (highest) for *CTD image and reputation*.

Table 4.1 Descriptive Statistical Summary for Effectiveness Criterion

TOPIC	Frequency Distribution Scale				Mean	SD	Qualitative Description
	1	2	3	4			
Trainings based on needs assessment	1	6	9	10	3.077	0.891	Average
Financial Resources	1	6	10	9	3.038	0.871	Average
Types of trainings	0	3	12	11	3.308	0.679	High
Distribution of trainees	2	6	8	10	3.000	0.980	Average
Trainability of trainees	1	4	7	14	3.308	0.884	High
Quality of trainers	2	2	10	12	3.231	0.908	Average
Relevance of training	2	3	10	11	3.154	0.925	Average
Quality of training delivery	1	3	6	16	3.423	0.857	High
Trainee attendance	1	6	11	8	3.000	0.849	Average
Trainee satisfaction	0	0	12	14	3.538	0.508	High
Learning achievement	1	3	5	17	3.462	0.859	High
Learning application	0	3	6	17	3.538	0.706	High
Motivation after training	0	3	6	17	3.538	0.706	High
Organizational impact of trainings	0	2	8	16	3.538	0.647	High
Customer satisfaction	1	0	16	9	3.269	0.667	High
HRMD decisions as a result of trainings	2	4	8	12	3.154	0.967	Average
CTD Image and reputation	4	2	0	10	3.000	1.058	Average

In **Table 4.2**, at a mean of 2.500, LDD perceives the gathering of information on the *relevance of training* to be less effective in monitoring the quality of trainings. However, range of means for the rest of the topics from 2.750 to 3.625 indicates that respondents distributed according to their roles as stakeholders generally perceive the topics to have average to high priority levels in monitoring the quality of trainings. More specifically, stakeholders agree that topics (1) *Trainee satisfaction,* (2) *Learning application,* (3) *motivation after training,* and (4) *Organizational impact of trainings* to be of high priority level in monitoring the quality of trainings. At a scale of 1-4, the variation of response (or opinion) of respondents on the effectiveness of topics is ranging from 0.090 (lowest) for *Trainings based on needs assessment* to 0.565 (highest) for *Learning achievement*.

In the same table, the analysis of variance at α 0.05 significance level reveals that among the topics assessed for its effectiveness in monitoring the quality of trainings, respondents grouped by organizational unit have a significant difference in perception particularly on topics (1) *trainee satisfaction* and (2) *learning achievement* with p-values of 0.039 and 0.030, respectively.

Table 4.2 Analysis of Variance for Effectiveness Criterion by Organizational Unit

TOPIC	MEANS				SD	P-value	Significance
	LDD	CRIOD	COSO	HRMD			
Trainings based on needs assessment	3.167	3.000	3.000	3.143	0.090	0.981	not significant
Financial Resources	2.833	3.167	2.857	3.286	0.225	0.746	not significant
Types of trainings	3.333	3.500	3.143	3.286	0.147	0.842	not significant
Distribution of trainees	3.000	2.833	2.857	3.286	0.208	0.840	not significant
Trainability of trainees	2.667	3.500	3.429	3.571	0.421	0.248	not significant
Quality of trainers	2.667	3.333	3.571	3.286	0.386	0.349	not significant
Relevance of training	2.500	3.167	3.571	3.286	0.454	0.209	not significant
Quality of training delivery	3.500	3.333	3.571	3.286	0.135	0.928	not significant
Trainee attendance	2.667	3.000	2.857	3.429	0.324	0.426	not significant
Trainee satisfaction	3.167	3.333	3.714	3.857	0.322	0.039	significant
Learning achievement	2.667	3.333	3.857	3.857	0.565	0.030	significant
Learning application	3.167	3.167	3.857	3.857	0.399	0.094	not significant
motivation after training	3.333	3.333	3.571	3.857	0.249	0.508	not significant
Organizational impact of trainings	3.500	3.167	3.857	3.571	0.284	0.305	not significant
Customer satisfaction	2.833	3.333	3.286	3.571	0.308	0.263	not significant
HRMD decisions as a result of trainings	2.833	2.833	3.286	3.571	0.363	0.453	not significant
CTD Image and reputation	2.667	3.167	3.143	3.000	0.230	0.850	not significant

In **Table 4.3**, results reveal that respondents grouped according to their role as stakeholders generally perceive the effectiveness of the topics in monitoring the quality of trainings, as shown in the range of means from 2.75 (lowest) to 3.750 (highest). However, it can be observed that means for all topics assessed by trainers were only average scales

implying that the topics have average level effectiveness as measures of in monitoring the quality of trainings. On the other hand, managers perceive the high level effectiveness of topics that are focused on measuring (1) *quality of trainers*, (2) *relevance of training*, (3) *quality of training delivery*, (4*) learning transfer variables*, and (5) *training results*. Trainees, however, generally agree on the effectiveness of topics as shown in the table below.

At a scale of 1-4, the variation of response (or opinion) of respondents on the effectiveness of topics is ranging from 0.125 (lowest) for *Trainings based on needs assessment* to 0.456 (highest) for *CTD Image and reputation*.

In spite of these differences, the analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to their roles as stakeholders on the effectiveness of topics in monitoring the quality of trainings.

Table 4.3 Analysis of Variance for Effectiveness Criterion by Stakeholders

TOPIC	MEANS			SD	P-value	Significance
	Manager s	Trainers	Trainees			
Trainings based on needs assessment	3.125	2.750	3.300	0.281	0.439	not significant
Financial Resources	2.875	3.000	3.200	0.164	0.742	not significant
Types of trainings	3.250	3.125	3.300	0.090	0.879	not significant
Distribution of trainees	3.125	2.375	3.200	0.456	0.162	not significant
Trainability of trainees	3.250	3.000	3.400	0.202	0.666	not significant
Quality of trainers	3.375	3.000	3.100	0.194	0.717	not significant
Relevance of training	3.500	2.750	3.000	0.382	0.271	not significant
Quality of training delivery	3.500	3.125	3.400	0.194	0.699	not significant
Trainee attendance	2.875	2.750	3.100	0.177	0.688	not significant
Trainee satisfaction	3.625	3.125	3.600	0.282	0.144	not significant
Learning achievement	3.625	2.875	3.600	0.426	0.156	not significant
Learning application	3.500	3.250	3.600	0.180	0.634	not significant
Motivation after training	3.625	3.250	3.500	0.191	0.621	not significant
Organizational impact of trainings	3.750	3.250	3.400	0.257	0.359	not significant
Customer satisfaction	3.375	3.125	3.300	0.128	0.757	not significant
HRMD decisions as a result of trainings	3.000	3.000	3.400	0.231	0.610	not significant
CTD Image and reputation	2.875	3.125	3.000	0.125	0.902	not significant

PROPOSED INDICATORS OF THE MONITORING SYSTEM

As defined earlier, indicators refer to quantitative measures of units which are used to provide information about the effects of HRD policies and quality-control efforts of the Career and Training Division of the PNHA. These are also specific measures representing the

topics in the monitoring system assessed by respondents according to two criteria, namely: *appropriateness* and *complexity of data gathering process*.

APPROPRIATENESS CRITERION

In the instrument, appropriateness criterion measures the extent to which an indicator truly represents the topics being monitored.

Table 5.1 provides a statistical summary for appropriateness criterion including frequency distribution, mean and standard deviation for each indicator. Among the indicators assessed by respondents, *distribution of trainees according to gender* is perceived by respondents to be less appropriate in collecting information on the distribution of trainees specifically at a mean of 2.500. However, the rest of the indicators have a mean scaled at average to high appropriateness levels. The table shows the highest mean at 3.731 for gathering information on the *total annual budget for trainings* and *measuring trainee satisfaction on training contents*. Further, at a scale of 1-4, the variation of response (or opinion) among respondents on the appropriateness of indicators is ranging from 0.452 (lowest) to 1.017 (highest).

Finally, the indicator *distribution of trainees according to gender* is eliminated from the inventory having a mean of 2.500 signifying a *low* qualitative description. This is based on the condition stated in the development of the research instrument in Chapter III that a topic or indicator will remain in the inventory only if it has a mean within the minimum range of 2.51-4.00 (Average to High) for *relevance*, *priority*, *effectiveness* and a*ppropriateness* criteria.

Table 5.1 Descriptive Statistical Summary for Appropriateness Criterion

TOPICS and INDICATORS	Frequency Distribution				MEAN	SD	Qualitative Description
	1	2	3	4			
1. Number of trainings conducted based on needs assessment in the forms of:							
Performance Review	0	4	7	15	3.423	0.758	High
Management Inventory	0	5	11	10	3.192	0.749	Average
Management Request	0	6	15	5	2.962	0.662	Average
Change in work systems	0	5	10	11	3.231	0.765	Average
2. Records of financial resources such as:							
total annual budget for trainings	0	2	3	21	3.731	0.604	High
total actual expenditures on trainings	0	3	5	18	3.577	0.703	High
3. Information about the types of trainings.							
According to purpose	0	1	7	18	3.654	0.562	High

According to source	0	5	13	8	3.115	0.711	High
According to level	0	5	13	8	3.115	0.711	High
4. Information on the distribution of employees who attend the trainings.							
Distribution by age	3	7	10	6	2.731	0.962	Average
Distribution by gender	5	5	14	2	2.500	0.906	Low
5. Information on the trainability of trainees before they attend the training such as:							
Level of preparedness of trainees	0	4	10	12	3.308	0.736	High
Level of previous knowledge and skills	0	1	7	18	3.654	0.562	High
Level of performance	0	1	11	14	3.500	0.583	High
6. Information on the quality of trainers before they conduct trainings.							
Educational background of trainers	1	2	6	17	3.500	0.812	High
Relevant training-related work experiences	1	1	8	16	3.500	0.762	High
Percentage of certified trainers	2	5	10	9	3.000	0.938	Average
Competency profile of trainers	1	2	6	17	3.500	0.812	High
7. Information on trainee's perception on the relevance of trainings such as:							
Relevance of training contents to his/her job context.	1	3	7	15	3.385	0.852	High
Relevance of training to future career dev't	1	3	8	14	3.346	0.846	High
Applicability of training to current job.	1	2	6	17	3.500	0.812	High
8. Information on the quality of the training delivery.							
Duration of the training delivery.	0	4	11	11	3.269	0.724	High
Percentage of trainings conducted on time	0	4	11	11	3.269	0.724	High
Trainer-trainee ratio during training delivery	0	3	15	8	3.192	0.634	Average
9. Number of official trainees who attend and participate in trainings in the forms of:							
Percentage of fully completion	1	0	12	13	3.423	0.703	High
Percentage of drop outs	2	4	11	9	3.038	0.916	Average
Percentages of no show	3	3	13	7	2.923	0.935	Average
10. Trainee satisfaction after attending the training specifically on the:							
Training contents	0	0	7	19	3.731	0.452	High
Methods and activities used in the training.	0	0	9	17	3.654	0.485	High
Performance of the trainer during the training.	0	0	9	17	3.654	0.485	High
11. Level of learning achievement of trainees after the training such as:							
Learning improvements as a result of training.	1	2	5	18	3.538	0.811	High
Achievement of short-term objectives	1	0	10	15	3.500	0.707	High
12. Level of learning application when trainees go back to their jobs after the training.							
Opportunity to apply training to his/her job.	0	1	8	17	3.615	0.571	High
Support to trainees in the transfer of learning	0	3	9	14	3.423	0.703	High
Actual application of training to trainees' job.	0	2	6	18	3.615	0.637	High
13. Level of work motivation of trainees after attending the training.							
Increased organizational commitment	0	3	5	18	3.577	0.703	High
Frequency of absenteeism and turn-over	1	5	12	8	3.038	0.824	Average
Willingness to render extra hours at work	0	4	7	15	3.423	0.758	High
14. Organizational impact or long term results of trainings.							
Frequency of problems or deficiencies	2	1	12	11	3.231	0.863	Average
Contribution of trainings to annual organizational	0	3	6	17	3.538	0.706	High

targets							
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings, in terms of frequency of:							
Training request/demands	1	2	14	9	3.192	0.749	Average
Complaints from customers about contents, delivery and results of trainings.	1	4	11	10	3.154	0.834	Average
Meeting or exceeding customer expectations.	1	3	7	15	3.385	0.852	High
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD expressed through percentage or extent of:							
Trainings renewed by HRMD.	1	1	10	14	3.423	0.758	High
Newly created trainings.	1	3	12	10	3.192	0.801	Average
Performance to justify future budget for trainings.	3	3	9	11	3.077	1.017	Average
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings, as perceived by:							
Management	1	0	10	15	3.500	0.707	High
Trainees	1	0	12	13	3.423	0.703	High

In **Table 5.2**, among the organizational units, respondents from LDD perceive *distribution of trainees according to age* to be less appropriate in gathering of information of the distribution of trainees within the organization, as indicated by a mean of 2.500. With am mean of 2.429, respondents from COSO also perceive *percentage of certified trainers* to be less appropriate in gathering information on the quality of trainers before they conduct trainings. The rest of the indicators, however, are perceived by respondent grouped according to organizational units to have average to high appropriateness levels as measures of topics for the monitoring system. Further, at a scale of 1-4, the variation of response (or opinion) among respondents on the appropriateness of indicators is ranging from 0.606 (lowest) for *methods and activities used in the training* to 0.540 (highest) for *percentage of certified trainers*.

In spite of these differences, the analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to organizational units on the appropriateness of indicators as measures of topics for the monitoring system.

Table 5.2 Analysis of Variance for Appropriateness Criterion by Organizational Unit

TOPICS and INDICATORS	MEANS				SD	P-value	Significance
	LDD	CRIOD	COSO	HRMD			
1. Number of trainings conducted based on needs assessment in the forms of:							
Performance Review	3.500	3.500	3.571	3.143	0.193	0.741	not significant
Management Inventory	3.333	3.333	3.000	3.143	0.162	0.840	not significant
Management Request	2.833	3.500	2.857	2.714	0.355	0.144	not significant

Change in work systems	3.167	3.000	3.571	3.143	0.245	0.584	not significant
2. Records of financial resources such as:							
total annual budget for trainings	3.667	3.667	3.714	3.857	0.090	0.939	not significant
total actual expenditures on trainings	3.167	3.667	3.571	3.857	0.291	0.371	not significant
3. Information about the types of trainings.							
According to purpose	3.500	3.833	3.714	3.571	0.149	0.754	not significant
According to source	2.833	3.333	3.000	3.286	0.238	0.580	not significant
According to level	3.000	3.333	3.143	3.000	0.158	0.840	not significant
4. Information on the distribution of employees who attend the trainings.							
Distribution by age	2.500	3.167	2.714	2.571	0.299	0.647	not significant
Distribution by gender	2.333	2.667	2.571	2.429	0.148	0.930	not significant
5. Information on the trainability of trainees before they attend the training such as:							
Level of preparedness of trainees	3.333	3.000	3.143	3.714	0.310	0.329	not significant
Level of previous knowledge and skills	3.500	3.500	3.857	3.714	0.175	0.620	not significant
Level of performance	3.167	3.333	3.857	3.571	0.300	0.156	not significant
6. Information on the quality of trainers before they conduct trainings.							
Educational background of trainers	3.667	3.000	3.571	3.714	0.331	0.401	not significant
Relevant training-related work experiences	3.333	3.167	3.714	3.714	0.277	0.491	not significant
Percentage of certified trainers	3.333	2.667	2.429	3.571	0.540	0.071	not significant
Competency profile of trainers	3.500	3.333	3.571	3.571	0.112	0.955	not significant
7. Information on trainee's perception on the relevance of trainings such as:							
Relevance of training contents to his/her job context.	2.667	3.500	3.571	3.714	0.473	0.118	not significant
Relevance of training to future career dev't	2.833	3.167	3.571	3.714	0.400	0.237	not significant
Applicability of training to current job.	2.833	3.500	3.857	3.714	0.453	0.110	not significant
8. Information on the quality of the training delivery.							
Duration of the training delivery.	3.333	3.500	2.857	3.429	0.290	0.370	not significant
Percentage of trainings conducted on time	3.167	3.000	3.286	3.571	0.241	0.563	not significant
Trainer-trainee ratio during training delivery	3.333	2.667	3.286	3.429	0.346	0.130	not significant
9. Number of official trainees who attend and participate in trainings in the forms of:							
Percentage of fully completion	3.167	3.500	3.429	3.571	0.177	0.779	not significant
Percentage of drop outs	2.833	2.833	3.000	3.429	0.281	0.623	not significant
Percentages of no show	2.833	3.000	2.857	3.000	0.090	0.984	not significant
10. Trainee satisfaction after attending the training specifically on the:							
Training contents	3.667	3.667	4.000	3.571	0.188	0.323	not significant
Methods and activities used in the training.	3.667	3.667	3.714	3.571	0.060	0.962	not significant
Performance of the trainer during the training.	3.500	3.500	4.000	3.571	0.240	0.173	not significant
11. Level of learning achievement of trainees after the training such as:							
Learning improvements as a result of training.	3.000	3.500	3.857	3.714	0.375	0.263	not significant
Achievement of short-term objectives	3.167	3.333	3.714	3.714	0.277	0.419	not significant
12. Level of learning application when trainees go back to their jobs after the training.							
Opportunity to apply training to his/her job.	3.500	3.500	3.857	3.571	0.170	0.644	not significant
Support to trainees in the transfer of learning	3.333	3.167	3.571	3.571	0.198	0.703	not significant
Actual application of training to trainees' job.	3.500	3.333	3.857	3.714	0.231	0.490	not significant
13. Level of work motivation of trainees after attending the training.							

Increased organizational commitment	3.333	3.333	3.857	3.714	0.268	0.441	not significant
Frequency of absenteeism and turn-over	3.333	3.000	2.714	3.143	0.261	0.603	not significant
Willingness to render extra hours at work	3.333	3.167	3.571	3.571	0.198	0.751	not significant
14. Organizational impact or long term results of trainings.							
Frequency of problems or deficiencies	3.333	3.333	2.714	3.571	0.367	0.299	not significant
Contribution of trainings to annual organizational targets	3.167	3.167	4.000	3.714	0.415	0.069	not significant
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings, in terms of frequency of:							
Training request/demands	2.833	3.167	3.143	3.571	0.303	0.379	not significant
Complaints from customers about contents, delivery and results of trainings.	2.833	3.000	3.143	3.571	0.316	0.437	not significant
Meeting or exceeding customer expectations.	2.833	3.167	3.714	3.714	0.434	0.171	not significant
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD expressed through percentage or extent of:							
Trainings renewed by HRMD.	3.167	3.333	3.571	3.571	0.198	0.751	not significant
Newly created trainings.	3.000	3.167	3.143	3.429	0.179	0.824	not significant
Performance to justify future budget for trainings.	3.000	3.167	3.286	2.857	0.188	0.887	not significant
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings, as perceived by:							
Management	3.000	3.667	3.714	3.571	0.331	0.265	not significant
Trainees	3.167	3.333	3.571	3.571	0.198	0.703	not significant

In **Table 5.3**, among the stakeholder, managers perceive *percentage of certified trainers* to be less appropriate in gathering of information on the quality of trainers, as indicated by a mean of 2.500. Trainers, however, perceive the *distribution by age and gender* as less appropriate indicators for gathering information on the distribution of trainees both with a mean of 2.375. On a similar position, trainees perceive *distribution by gender* as a less appropriate indicator for the same, as indicated by a mean of 2.500.

At a scale of 1-4, the variation of response (or opinion) among respondents on the appropriateness of indicators is ranging from 0.014 (lowest) for *classification of trainings according to levels such as managerial, supervisory and rank and file* to 0.439 (highest) for measuring work motivation as a result of training as manifested in the *frequency of absenteeism and turn-over*.

In spite of these differences, in the analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to their roles as stakeholders on the appropriateness of indicators as measures of topics for the monitoring system.

Table 5.3 Analysis of Variance for Appropriateness Criterion by Stakeholders

INDICATORS	MEANS			SD	P-value	Significance
	Managers	Trainers	Trainees			
1. Number of trainings conducted based on needs assessment in the forms of:						
Performance Review	3.750	3.375	3.200	0.281	0.315	not significant
Management Inventory	3.125	3.500	3.000	0.260	0.370	not significant
Management Request	3.000	3.000	2.900	0.058	0.937	not significant
Change in work systems	3.375	3.250	3.100	0.138	0.763	not significant
2. Records of financial resources such as:						
total annual budget for trainings	3.875	3.500	3.800	0.198	0.433	not significant
total actual expenditures on trainings	3.625	3.250	3.800	0.281	0.258	not significant
3. Information about the types of trainings.						
According to purpose	4.000	3.500	3.500	0.289	0.109	not significant
According to source	3.125	3.000	3.200	0.101	0.849	not significant
According to level	3.125	3.125	3.100	0.014	0.997	not significant
4. Information on the distribution of employees who attend the trainings.						
Distribution by age	3.000	2.375	2.800	0.319	0.429	not significant
Distribution by gender	2.625	2.375	2.500	0.125	0.868	not significant
5. Information on the trainability of trainees before they attend the training such as:						
Level of preparedness of trainees	3.000	3.625	3.300	0.313	0.244	not significant
Level of previous knowledge and skills	3.625	3.625	3.700	0.043	0.951	not significant
Level of performance	3.500	3.625	3.400	0.113	0.735	not significant
6. Information on the quality of trainers before they conduct trainings.						
Educational background of trainers	3.000	3.750	3.700	0.419	0.108	not significant
Relevant training-related work experiences	3.375	3.500	3.600	0.113	0.835	not significant
Percentage of certified trainers	2.500	3.125	3.300	0.421	0.182	not significant
Competency profile of trainers	3.250	3.625	3.600	0.210	0.596	not significant
7. Information on trainee's perception on the relevance of trainings such as:						
Relevance of training contents to his/her job context.	3.500	3.125	3.500	0.217	0.604	not significant
Relevance of training to future career dev't	3.375	3.125	3.500	0.191	0.660	not significant
Applicability of training to current job.	3.750	3.125	3.600	0.326	0.281	not significant
8. Information on the quality of the training delivery.						
Duration of the training delivery.	3.250	3.500	3.100	0.202	0.525	not significant
Percentage of trainings conducted on time	3.375	3.250	3.200	0.090	0.884	not significant
Trainer-trainee ratio during training delivery	3.000	3.250	3.300	0.161	0.598	not significant
9. Number of official trainees who attend and participate in trainings in the forms of:						
Percentage of fully completion	3.375	3.250	3.600	0.177	0.580	not significant
Percentage of drop outs	2.875	3.000	3.200	0.164	0.763	not significant
Percentages of no show	3.000	2.875	2.900	0.066	0.963	not significant
10. Trainee satisfaction after attending the training specifically on the:						
Training contents	3.875	3.625	3.700	0.128	0.542	not significant
Methods and activities used in the training.	3.750	3.625	3.600	0.080	0.806	not significant
Performance of the trainer during the training.	3.750	3.500	3.700	0.132	0.565	not significant
11. Level of learning achievement of trainees after the training such as:						

Learning improvements as a result of training.	3.750	3.250	3.600	0.257	0.465	not significant
Achievement of short-term objectives	3.500	3.375	3.600	0.113	0.811	not significant
12. Level of learning application when trainees go back to their jobs after the training.						
Opportunity to apply training to his/her job.	3.875	3.500	3.500	0.217	0.315	not significant
Support to trainees in the transfer of learning	3.625	3.375	3.300	0.170	0.624	not significant
Actual application of training to trainees' job.	3.750	3.625	3.500	0.125	0.726	not significant
13. Level of work motivation of trainees after attending the training.						
Increased organizational commitment	3.750	3.500	3.500	0.144	0.721	not significant
Frequency of absenteeism and turn-over	2.625	3.500	3.000	0.439	0.099	not significant
Willingness to render extra hours at work	3.625	3.375	3.300	0.170	0.667	not significant
14. Organizational impact or long term results of trainings.						
Frequency of problems or deficiencies	2.875	3.500	3.300	0.319	0.346	not significant
Contribution of trainings to annual organizational targets	3.750	3.375	3.500	0.191	0.574	not significant
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings, in terms of frequency of:						
Training request/demands	3.000	3.125	3.400	0.205	0.526	not significant
Complaints from customers about contents, delivery and results of trainings.	3.000	3.125	3.300	0.151	0.760	not significant
Meeting or exceeding customer expectations.	3.500	3.125	3.500	0.217	0.604	not significant
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD expressed through percentage or extent of:						
Trainings renewed by HRMD.	3.500	3.250	3.500	0.144	0.755	not significant
Newly created trainings.	3.125	3.000	3.400	0.205	0.571	not significant
Performance to justify future budget for trainings.	3.125	3.000	3.100	0.066	0.969	not significant
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings, as perceived by:						
Management	3.750	3.125	3.600	0.326	0.181	not significant
Trainees	3.500	3.125	3.600	0.250	0.352	not significant

COMPLEXITY OF DATA GATHERING PROCESS CRITERION

In the instrument, this criterion measures the level of complexity of the necessary data gathering process for each indicator.

Table 6.1 provides a statistical summary for Complexity of Data Gathering Process criterion including frequency distribution, mean and standard deviation for each indicator. In the same table, indicators that are perceived to have slightly complex to highly complex data gathering process, as shown in the means and qualitative descriptions below.

Moreover, at a scale of 1-4, the variation of response (or opinion) respondents on the complexity of the data gathering process for each indicator is ranging from 0.588 (lowest) for the measurements of *level of preparedness of trainees* to 1.018 (highest) for

gathering information on the effects of training to future HRMD decisions through monitoring *newly created trainings*.

Table 6.1 Statistical Summary for Complexity of Data Gathering Process Criterion

INDICATORS	Frequency Distribution				MEAN	SD	Qualitative Description
	1	2	3	4			
1. Number of trainings conducted based on needs assessment in the forms of:							
Performance Review	1	8	10	7	2.885	0.864	Complex
Management Inventory	0	9	9	8	2.962	0.824	Complex
Management Request	1	8	12	5	2.808	0.801	Complex
Change in work systems	0	9	9	8	2.962	0.824	Complex
2. Records of financial resources such as:							
total annual budget for trainings	3	8	10	5	2.654	0.936	Complex
total actual expenditures on trainings	2	8	10	6	2.769	0.908	Complex
3. Information about the types of trainings.							
According to purpose	3	7	9	7	2.769	0.992	Complex
According to source	4	6	12	4	2.615	0.941	Complex
According to level	3	7	13	3	2.615	0.852	Complex
4. Information on the distribution of employees who attend the trainings.							
Distribution by age	5	9	9	3	2.385	0.941	Slightly Complex
Distribution by gender	6	10	8	2	2.231	0.908	Slightly Complex
5. Information on the trainability of trainees before they attend the training such as:							
Level of preparedness of trainees	0	3	17	6	3.115	0.588	Complex
Level of previous knowledge and skills	0	5	14	7	3.077	0.688	Complex
Level of performance	0	3	16	7	3.154	0.613	Complex
6. Information on the quality of trainers before they conduct trainings.							
Educational background of trainers	3	8	10	5	2.654	0.936	Complex
Relevant training-related work experiences	3	9	11	3	2.538	0.859	Complex
Percentage of certified trainers	1	8	11	6	2.846	0.834	Complex
Competency profile of trainers	0	4	13	9	3.192	0.694	Complex
7. Information on trainee's perception on the relevance of trainings such as:							
Relevance of training contents to his/her job context.	1	5	9	11	3.154	0.881	Complex
Relevance of training to future career dev't	1	6	8	11	3.115	0.909	Complex
Applicability of training to current job.	1	4	11	10	3.154	0.834	Complex
8. Information on the quality of the training delivery.							
Duration of the training delivery.	5	7	12	2	2.423	0.902	Slightly Complex
Percentage of trainings conducted on time	2	8	13	3	2.654	0.797	Complex
Trainer-trainee ratio during training delivery	2	10	13	1	2.500	0.707	Slightly Complex
9. Number of official trainees who attend and participate in trainings in the forms of:							
Percentage of fully completion	5	7	11	3	2.462	0.948	Slightly Complex
Percentage of drop outs	7	7	10	2	2.269	0.962	Slightly Complex
Percentages of no show	7	8	9	2	2.231	0.951	Slightly Complex
10. Trainee satisfaction after attending the training specifically on the:							

Training contents	2	4	11	9	3.038	0.916	Complex
Methods and activities used in the training.	2	4	12	8	3.000	0.894	Complex
Performance of the trainer during the training.	2	5	11	8	2.962	0.916	Complex
11. Level of learning achievement of trainees after the training such as:							
Learning improvements as a result of training.	1	4	10	11	3.192	0.849	Complex
Achievement of short-term objectives	1	4	12	9	3.115	0.816	Complex
12. Level of learning application when trainees go back to their jobs after the training.							
Opportunity to apply training to his/her job.	0	4	10	12	3.308	0.736	Highly Complex
Support to trainees in the transfer of learning	1	5	9	11	3.154	0.881	Complex
Actual application of training to trainees' job.	1	5	10	10	3.115	0.864	Complex
13. Level of work motivation of trainees after attending the training.							
Increased organizational commitment	1	4	10	11	3.192	0.849	Complex
Frequency of absenteeism and turn-over	4	7	9	6	2.654	1.018	Complex
Willingness to render extra hours at work	1	5	12	8	3.038	0.824	Complex
14. Organizational impact or long term results of trainings.							
Frequency of problems or deficiencies	2	5	10	9	3.000	0.938	Complex
Contribution of trainings to annual organizational targets	2	4	8	12	3.154	0.967	Complex
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings, in terms of frequency of:							
Training request/demands	4	9	11	2	2.423	0.857	Slightly Complex
Complaints from customers about contents, delivery and results of trainings.	3	8	13	2	2.538	0.811	Complex
Meeting or exceeding customer expectations.	2	6	12	6	2.846	0.881	Complex
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD expressed through percentage or extent of:							
Trainings renewed by HRMD.	5	9	9	3	2.385	0.941	Complex
Newly created trainings.	5	9	7	5	2.462	1.029	Slightly Complex
Performance to justify future budget for trainings.	4	6	10	6	2.692	1.011	Complex
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings, as perceived by:							
Management	3	3	11	9	3.000	0.980	Complex
Trainees	3	5	9	9	2.923	1.017	Complex

Table 6.2 shows the means and p-values of indicators assessed by respondents grouped according to organizational units for complexity of data gathering process.

At a scale of 1-4, the variation of response among respondents on the complexity of the data gathering process for each indicator is ranging from 0.092 (lowest) for collecting information on the *distribution of trainees according to gender* to 0.623 (highest) for measurements of organizational impact through monitoring *contribution of trainings to annual organizational targets*.

In the analysis of variance for this criterion at α 0.05 significance reveals that among the indicators assessed by respondents there is a significant difference in perception among

the four participating organizational units for the indicator *Degree of Contribution of Trainings to Annual Organizational* at 0.034 p-value.

Table 6.2 Analysis of Variance for Complexity of Data Gathering Process Criterion by Organizational Unit

TOPICS and INDICATORS	MEANS				SD	P-value	Significance
	LDD	CRIOD	COSO	HRMD			
1. Number of trainings conducted based on needs assessment in the forms of:							
Performance Review	2.833	3.167	2.714	2.857	0.193	0.835	not significant
Management Inventory	3.000	2.833	2.571	3.429	0.360	0.273	not significant
Management Request	2.833	2.833	2.429	3.143	0.293	0.444	not significant
Change in work systems	3.167	2.833	2.857	3.000	0.154	0.899	not significant
2. Records of financial resources such as:							
total annual budget for trainings	3.000	3.000	2.429	2.286	0.376	0.390	not significant
total actual expenditures on trainings	3.167	3.000	2.571	2.429	0.349	0.436	not significant
3. Information about the types of trainings.							
According to purpose	2.833	3.000	2.857	2.429	0.245	0.769	not significant
According to source	2.667	3.000	2.429	2.429	0.270	0.692	not significant
According to level	2.833	2.833	2.429	2.429	0.234	0.717	not significant
4. Information on the distribution of employees who attend the trainings.							
Distribution by age	2.167	2.833	2.286	2.286	0.299	0.633	not significant
Distribution by gender	2.167	2.333	2.286	2.143	0.092	0.981	not significant
5. Information on the trainability of trainees before they attend the training such as:							
Level of preparedness of trainees	3.000	2.833	3.286	3.286	0.224	0.448	not significant
Level of previous knowledge and skills	3.000	2.833	3.143	3.286	0.194	0.700	not significant
Level of performance	3.167	3.000	3.143	3.286	0.117	0.886	not significant
6. Information on the quality of trainers before they conduct trainings.							
Educational background of trainers	2.500	3.000	2.571	2.571	0.229	0.800	not significant
Relevant training-related work experiences	2.667	2.500	2.571	2.429	0.102	0.970	not significant
Percentage of certified trainers	2.833	3.167	2.571	2.857	0.244	0.674	not significant
Competency profile of trainers	3.167	3.000	3.429	3.143	0.179	0.749	not significant
7. Information on trainee's perception on the relevance of trainings such as:							
Relevance of training contents to his/her job context.	2.500	3.000	3.571	3.429	0.482	0.118	not significant
Relevance of training to future career dev't	2.500	2.833	3.571	3.429	0.503	0.108	not significant
Applicability of training to current job.	2.500	3.167	3.571	3.286	0.454	0.335	not significant
8. Information on the quality of the training delivery.							
Duration of the training delivery.	2.500	2.667	2.143	2.429	0.219	0.785	not significant
Percentage of trainings conducted on time	2.667	3.167	2.429	2.429	0.348	0.321	not significant
Trainer-trainee ratio during training delivery	2.667	2.833	2.286	2.286	0.277	0.419	not significant
9. Number of official trainees who attend and participate in trainings in the forms of:							
Percentage of fully completion	2.167	3.000	2.429	2.286	0.369	0.451	not significant
Percentage of drop outs	2.167	2.333	2.429	2.143	0.137	0.946	not significant

Percentages of no show	2.167	2.333	2.286	2.143	0.092	0.983	not significant
10. Trainee satisfaction after attending the training specifically on the:							
Training contents	3.167	3.000	3.429	2.571	0.360	0.376	not significant
Methods and activities used in the training.	3.000	3.000	3.429	2.571	0.350	0.377	not significant
Performance of the trainer during the training.	3.167	3.000	3.143	2.571	0.276	0.629	not significant
11. Level of learning achievement of trainees after the training such as:							
Learning improvements as a result of training.	2.500	3.333	3.286	3.571	0.466	0.125	not significant
Achievement of short-term objectives	2.667	3.333	3.143	3.286	0.305	0.489	not significant
12. Level of learning application when trainees go back to their jobs after the training.							
Opportunity to apply training to his/her job.	3.000	3.500	3.286	3.429	0.221	0.673	not significant
Support to trainees in the transfer of learning	2.667	3.333	3.286	3.286	0.318	0.518	not significant
Actual application of training to trainees' job.	2.667	3.333	3.286	3.143	0.305	0.542	not significant
13. Level of work motivation of trainees after attending the training.							
Increased organizational commitment	2.667	3.000	3.429	3.571	0.412	0.212	not significant
Frequency of absenteeism and turn-over	2.833	3.000	2.286	2.571	0.312	0.632	not significant
Willingness to render extra hours at work	2.667	3.167	3.000	3.286	0.269	0.596	not significant
14. Organizational impact or long term results of trainings.							
Frequency of problems or deficiencies	2.500	3.167	3.000	3.286	0.346	0.491	not significant
Contribution of trainings to annual organizational targets	2.333	3.167	3.143	3.857	0.623	0.034	Significant
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings, in terms of frequency of:							
Training request/demands	2.333	2.667	2.429	2.286	0.169	0.881	not significant
Complaints from customers about contents, delivery and results of trainings.	2.500	2.667	2.571	2.429	0.102	0.965	not significant
Meeting or exceeding customer expectations.	2.333	3.000	3.143	2.857	0.353	0.409	not significant
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD expressed through percentage or extent of:							
Trainings renewed by HRMD.	2.333	2.500	2.429	2.286	0.096	0.981	not significant
Newly created trainings.	2.500	2.667	2.429	2.286	0.158	0.937	not significant
Performance to justify future budget for trainings.	2.500	2.667	3.000	2.571	0.221	0.828	not significant
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings, as perceived by:							
Management	2.500	3.333	3.143	3.000	0.357	0.517	not significant
Trainees	2.500	3.333	3.000	2.857	0.345	0.581	not significant

Table 6.3 shows the means and p-values of indicators assessed by respondents grouped according to their roles as stakeholders for complexity of data gathering process.

At a scale of 1-4, the variation of response among respondents on the complexity of the data gathering process for each indicator is ranging from 0.043 (lowest) for *level of performance before trainees attend the trainings* as a measurement for trainability of trainees to 0.505 (highest) for the measurements of organizational impact through monitoring *frequency of problems and deficiencies* after the training.

In the analysis of variance at α 0.05 significance level reveals that there is no significant difference in the perception of respondents grouped according to their role as stakeholders on the complexity of data gathering process of indicators for each topic for the monitoring system.

Table 6.3 Analysis of Variance for Complexity of Data Gathering Process Criterion by Stakeholders

TOPICS AND INDICATORS	MEANS			SD	P-value	Significance
	Managers	Trainers	Trainees			
1. Number of trainings conducted based on needs assessment in the forms of:						
Performance Review	2.625	3.000	3.000	0.217	0.612	not significant
Management Inventory	2.625	3.375	2.900	0.379	0.189	not significant
Management Request	2.375	3.000	3.000	0.361	0.185	not significant
Change in work systems	3.000	3.000	2.900	0.058	0.959	not significant
2. Records of financial resources such as:						
total annual budget for trainings	2.375	2.625	2.900	0.263	0.513	not significant
total actual expenditures on trainings	2.625	2.625	3.000	0.217	0.611	not significant
3. Information about the types of trainings.						
According to purpose	2.625	2.750	2.900	0.138	0.852	not significant
According to source	2.250	2.625	2.900	0.326	0.361	not significant
According to level	2.250	2.625	2.900	0.326	0.285	not significant
4. Information on the distribution of employees who attend the trainings.						
Distribution by age	2.500	2.000	2.600	0.321	0.387	not significant
Distribution by gender	2.125	1.875	2.600	0.368	0.231	not significant
5. Information on the trainability of trainees before they attend the training such as:						
Level of preparedness of trainees	3.000	3.125	3.200	0.101	0.787	not significant
Level of previous knowledge and skills	2.750	3.125	3.300	0.281	0.243	not significant
Level of performance	3.125	3.125	3.200	0.043	0.985	not significant
6. Information on the quality of trainers before they conduct trainings.						
Educational background of trainers	2.500	2.500	2.900	0.231	0.589	not significant
Relevant training-related work experiences	2.250	2.500	2.800	0.275	0.414	not significant
Percentage of certified trainers	2.375	3.125	3.000	0.402	0.151	not significant
Competency profile of trainers	3.125	3.000	3.400	0.205	0.471	not significant
7. Information on trainee's perception on the relevance of trainings such as:						
Relevance of training contents to his/her job context.	3.250	2.625	3.500	0.451	0.101	not significant
Relevance of training to future career dev't	3.000	2.750	3.500	0.382	0.206	not significant
Applicability of training to current job.	3.250	2.750	3.400	0.340	0.248	not significant
8. Information on the quality of the training delivery.						
Duration of the training delivery.	2.125	2.375	2.700	0.288	0.415	not significant
Percentage of trainings conducted on time	2.500	2.750	2.700	0.132	0.812	not significant
Trainer-trainee ratio during training delivery	2.375	2.625	2.500	0.125	0.793	not significant
9. Number of official trainees who attend and participate in trainings in the forms of:						

Percentage of fully completion	2.250	2.250	2.800	0.318	0.370	not significant
Percentage of drop outs	1.875	2.250	2.600	0.363	0.293	not significant
Percentages of no show	1.875	2.250	2.500	0.315	0.398	not significant
10. Trainee satisfaction after attending the training specifically on the:						
Training contents	2.875	3.000	3.200	0.164	0.763	not significant
Methods and activities used in the training.	2.875	2.875	3.200	0.188	0.684	not significant
Performance of the trainer during the training.	2.750	3.000	3.100	0.180	0.732	not significant
11. Level of learning achievement of trainees after the training such as:						
Learning improvements as a result of training.	3.000	3.250	3.300	0.161	0.754	not significant
Achievement of short-term objectives	2.875	3.250	3.200	0.204	0.348	not significant
12. Level of learning application when trainees go back to their jobs after the training.						
Opportunity to apply training to his/her job.	3.125	3.625	3.200	0.270	0.620	not significant
Support to trainees in the transfer of learning	3.125	3.375	3.000	0.191	0.682	not significant
Actual application of training to trainees' job.	3.125	3.250	3.000	0.125	0.841	not significant
13. Level of work motivation of trainees after attending the training.						
Increased organizational commitment	2.750	3.375	3.400	0.368	0.214	not significant
Frequency of absenteeism and turn-over	2.125	3.125	2.700	0.502	0.142	not significant
Willingness to render extra hours at work	2.875	3.250	3.000	0.191	0.667	not significant
14. Organizational impact or long term results of trainings.						
Frequency of problems or deficiencies	2.500	2.875	3.500	0.505	0.066	not significant
Contribution of trainings to annual organizational targets	2.875	3.125	3.400	0.263	0.536	not significant
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings, in terms of frequency of:						
Training request/demands	2.125	2.625	2.500	0.260	0.492	not significant
Complaints from customers about contents, delivery and results of trainings.	2.375	2.750	2.500	0.191	0.659	not significant
Meeting or exceeding customer expectations.	3.000	2.750	2.800	0.132	0.844	not significant
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD expressed through percentage or extent of:						
Trainings renewed by HRMD.	2.125	2.250	2.700	0.302	0.404	not significant
Newly created trainings.	2.125	2.375	2.800	0.341	0.384	not significant
Performance to justify future budget for trainings.	2.375	2.625	3.000	0.315	0.644	not significant
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings, as perceived by:						
Management	3.000	2.750	3.200	0.225	0.434	not significant
Trainees	2.875	2.625	3.200	0.288	0.504	not significant

Comments and Suggestions from Respondents

The research instrument provided an array of topics and indicators for respondents to assess according to the above-indicated criteria. It also provides opportunity for respondents to express their comments and suggestions on the inclusion of more topics and indicators and not covered in the inventory. Respondents' comments and suggestions on the first stage of data gathering are as follow:

Suggested Indicators

1. Distribution of trainees per occupational groupings.
2. Distribution of trainees by position levels.
3. Frequency of trainings conducted.

Comments

1. Physical arrangement and facilities should be conducive to learning.
2. Trainings should be matched according to usefulness and applicability per occupational groupings.
3. Trainees must be given opportunity to echo or practice learning.
4. Employees' skills and learning need to be upgraded (through training).
5. Trainees should share their knowledge and skills from the training to co-workers.
6. In-house training can be less expensive.
7. The National Housing Authority usually gets the best trainers.
8. Monitoring can be done even before the actual training delivery.
9. Satisfaction can be linked with learning application.
10. It is assumed where there is learning after the training, application follows.
11. Employee commitment after the training can be linked with trainee satisfaction.
12. Monitoring the number of training request/demands from customers (managers) for the renewal or creation of new trainings (topic 15) is not at all relevant.
13. Percentage of trainings renewed (topic 16) can be extracted from evaluation sheets of participants.
14. CTD image and reputation should be discarded, what if image and reputation of CTD staff is not satisfactory, and will they be changed. Not at all relevant, otherwise it will reach the grievance committee.
15. If the intent of the research is to integrate other measure, maybe the research instrument shall contain the features of existing materials used.
16. Feedback mechanism after the training is also important.

17. Workshops and foreign-sponsored education should also be monitored.
18. How about monitoring the trainings of clients and program beneficiaries as participants?
19. What happens when management perception of CTD competence is unsatisfactory? Does that necessarily mean cutting off budget for trainings?
20. Follow-up after training should be institutionalized.
21. The level of impact of the trainees' contribution to the performance of his/her unit after the one year period of assessment could also be considered as a monitoring tool. The device or the type of assessment may be formulated based on the actual contribution of the trained employee/staff/officer.
22. Creation of a training master plan.
23. Update profiles of employees to secure accurate monitoring.
24. Outsource higher education in foreign countries for non-technical disciplines.
25. Maximize plans for scholarship grantees and must be fairly assessed.

These topics suggested above as well as the comments from respondents on the training system of the PNHA will be included in the final output, the proposal for a monitoring system. The purpose of mentioning this comment is for HRMD to be aware of how stakeholders think about the training system. This paper, however, is limited only on the selection of topics and indicators for the development of a monitoring system for trainings. The researcher wishes to abstain from further discussing these concerns at least in the conduct of this study due to time constraints. Perhaps, these comments may be more beneficial to further avenues of research or inquiries.

Chapter V
CONCLUSIONS

This chapter highlights the results of the study summarized according to the research objectives. The synopsis further explains the procedures undertaken to attain such objectives and corresponding outcomes.

I.

In conceptualizing a monitoring system specifically for trainings conducted by the Philippines National Housing Authority, an extensive review on related literature is conducted. Literature provides a number of monitoring systems for trainings; however, the study focuses only on three leading monitoring frameworks in the fields of education and HRD, namely: Learning Scorecard, Input-Process-Outcome Approach and Learning Transfer Systems Inventory. In developing a monitoring system, these frameworks provide adequate explanation and direction in selecting the topics and indicators for the proposed monitoring system.

After carefully studying the abovementioned frameworks, a list of topics and indicators is structured into a questionnaire which, in turn, respondents assess their usefulness in monitoring the quality of trainings conducted by the PNHA. The questionnaire also integrates existing training measures such as needs assessment in the forms of performance review, management inventory, management requests, and change in management systems; pre-post learning assessments; and performance evaluation before and after training interventions. Other forms of monitoring the quality of trainings being implemented by the PNHA are done through screening training contents and methods, recording attendance and participation of trainees and measuring trainee reaction after attending the training.

II.

The inventory of topics and indicators presented in the questionnaire was assessed by 26 respondents. The usefulness of the topics is assessed according to relevance, priority and effectiveness in monitoring the quality of trainings, while indicators are assessed according to their appropriateness as measures representing the topics and complexity of the necessary data gathering process.

Using the Policy Delphi Procedure, results reveal that 26 respondents agree on the usefulness of all the topics in monitoring the quality of trainings based on relevance, priority level and effectiveness. Moreover, respondents generally agree that indicators are

appropriate measures representing the identified topics except on the collection of information on the *distribution of trainees according to gender*. They further agree that most of the data gathering processes in monitoring the quality of trainings are generally complex.

III.

Finally, the results show that, apart from some minor revisions, respondents accept the system. In fact, there appears to be a consensus among the respondents given that there is no significant difference in their perception in most of the criteria.

However, when respondents were grouped according to organizational units, results reveal that they vary in opinion on the effectiveness of *trainee satisfaction* and *learning achievement* in monitoring the quality of trainings. In the same grouping, respondents further vary in opinion on the complexity of data gathering process in measuring the *contribution of trainings in meeting organizational targets*. It should be noted, though, that the comparison of means among groups of respondents is based on statistical standards. To actually unravel the differences, physical comparison may also be performed. For instance, in the Analysis of Variance for Relevance Criterion by Organizational Unit (table 2.2, p. 36), the relevance of training is assessed by LDD, CRIOD, COSO and HRMD with means of 2.833, 3.167, 3.571, and 3.429 respectively. Although statistically there is no significant difference, it should be noted that LDD perceives the topic *relevance of training* to be adequately relevant while other organizational units perceives it to be highly relevant. Perhaps, this research needs to define and establish standards on the range of acceptable difference in group means in addition to statistical measures. The physical comparison of means can be judge according to the difference in qualitative description, for instance, if unit X perceives a topic 8 as highly effective measure of quality while units A, B and C values it only as effective, then it can be concluded that the groups of respondents distributed according to organizational units differ in opinion on the effectiveness of topic 8. Another consideration in measuring differences is the number of respondents involved in this study. A wider range of stakeholders will provide a more accurate description on what topics and indicators are useful in monitoring the quality of trainings.

Given these results, the proposed monitoring system shall be composed of the topics and indicators presented below including suggestions from respondents on other indicators such as *distribution of trainees according to occupational grouping* and *level of position*, and *frequency of trainings conducted* subject to further assessment on the second stage

implementation of the Policy Delphi Procedure. The proposal further cites some data gathering techniques in implementing the monitoring system such as inventory or records keeping, survey questionnaire, performance evaluation, and annual corporate/departmental/ divisional performance, shown as Table 7.1.

Table 7.1 Proposed Topics and Indicators of the Monitoring System

Topics and Indicators	Data Gathering Methods
1. Number of trainings conducted based on	
a. Performance Review	Inventory/Records Keeping
b. Manpower Inventory	
c. Management Request	
d. Change in work systems	
2. Records of financial resources such as:	
a. total annual budget for trainings	Inventory/Records Keeping
b. total actual expenditures on trainings	
3. Information about the types of trainings.	
a. classifying trainings according to purpose	Inventory/Records Keeping
b. Classifying trainings according to source	
c. classifying trainings according to level	
4. Information on the distribution of employees who attend the trainings.	
a. Distribution by age	Inventory/Records Keeping
b. Distribution by occupational grouping	
c. Distribution by level of position	
5. Information on the trainability of trainees before they attend the training such as:	
a. Level of preparedness of trainees before attending the training.	Survey Questionnaires
b. Level of knowledge and skills that trainees possess before attending the training.	
c. Level of performance of trainees before attending the training.	Performance Evaluation
6. Information on the quality of trainers before they conduct trainings.	
a. Educational background of trainers	inventory/records Keeping
b. Number of relevant work experiences in conducting trainings.	
c. Percentage of certified trainers who conduct trainings	
d. Competency profile of trainers	Survey Questionnaire
7. Information on trainee's perception on the relevance of trainings.	
a. Trainee perception on the relevance of training contents to his/her job context.	Survey Questionnaire
b. Trainee perception on the relevance of the training to future career developments.	
c. Trainee perception on the applicability of training knowledge and skills to current job.	
8. Information on the quality of the training delivery.	
a. Duration of the training delivery.	Inventory/Records Keeping
b. Percentage of trainings conducted on time (timeliness).	
c. Trainer-trainee ratio during the delivery of the training.	
9. Number of trainees who attend and participate in trainings.	
a. Percentage of official trainees who fully completed the training.	Inventory/Records Keeping
b. Percentage of official trainees who dropped out before the end of the training.	
c. Percentages of official trainees who din not show up in the training session(s).	

Topics and Indicators	Data Gathering Methods
10. Trainee satisfaction after attending the training.	
a. Level of trainee satisfaction on the contents such as principles, information, facts, and skills presented in the training.	Survey Questionnaire
b. Level of trainee satisfaction on the methods and activities used in the training.	
c. Level of trainee satisfaction on the performance of the trainer during the training.	
11. Level of learning achievement of trainees after the training.	
a. Level of learning improvements of trainees as a result of the training.	Survey Questionnaire
b. Extent to which the short-term objectives of the training are achieved.	
12. Level of learning application when trainees go back to their jobs after the training.	
a. Information on the opportunity given to trainees in applying the training to his/her job.	Survey Questionnaire Interview Schedules
b. Information on the support a trainee receives in applying the training to his/her job.	
c. Information on the actual application of the training to the trainee's job.	
13. Level of work motivation of trainees after attending the training.	
a. Information on the increased organizational commitment of trainees after attending the training.	Survey Questionnaire
b. Frequency of absenteeism and turn-over as a result of the training.	Records Keeping
c. Level of willingness of employees to render extra hours at work as a result of the training.	Survey Questionnaire
14. Organizational impact or long term results of trainings.	
a. Frequency of problems or deficiencies after the training.	Records Keeping
b. Degree of contribution of trainings to annual organizational targets.	Annual Corporate Performance Reports
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings	
a. Number of training request/demands from customers (managers) for the renewal or creation of new trainings.	Records Keeping
b. Frequency of complaints from customers (managers) about the contents, delivery and results of the training.	Records Keeping
c. Extent to which the training meets or exceeds customer expectations.	Survey Questionnaires
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD.	
a. Percentage of trainings renewed by HRMD.	Records Keeping
b. Percentage of newly created trainings.	
c. Frequency of trainings conducted	
d. Extent to which previous performance of the CTD in conducting trainings will justify future budget for trainings.	Divisional Performance Report
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings.	
a. Management's perception on the capability of CTD to implement trainings.	Survey Questionnaire
b. Trainees' perception on the capability of CTD to implement trainings.	

Since it is rather impractical to separately collect information for each topic and indicator, researcher further recommends organizing the inventory of selected topics and indicators according to subsystems and stages as shown below as Table 7.2. The proposal also includes data collection instruments for tow primary methods: archival monitoring in

Table 7.3 and survey questionnaire in Table 7.4. The tables are provided with some data entries to demonstrate how the forms are filled up.

Table 7.2 Proposed Monitoring Framework

SUBSYSTEMS	STAGES		
	Pre-Trainings	**Implementation**	**Post-Training**
Policy	• Basis for conducting trainings • Financial Resources		• Learning Application • Future Decisions
Training Intervention	• Types • Relevance	• Quality of Training Contents & Delivery	• Outcome or results
Trainer	• Quality of Trainers	• Methods • Activities	• Image and Reputation
Trainee	• Trainability • Motivation to Learn	• Distribution • Attendance	• Satisfaction Index • Learning Achievement • Work Motivation

Archival Monitoring requires only the collection of quantitative data that are readily measurable or available for CTD as an implementing arm of the monitoring system. The structure presents a clear picture on the status of the training system in terms particularly the training intervention, trainer and trainee. However, higher forms of monitoring or evaluation such as learning acquisition, training transfer and organizational impact are measurable in other methods.

Table 7.3 Sample Archival Monitoring

Monitoring Report of Trainings Conducted
(June 2004-June 2005)

Indicators	Classification	Frequency	Percentage
Total No. of Trainings			**15**
Financial Resources			
	Budget	**800,000.00**	
	Expenditures	**729,645.40**	**91.2**
Basis			
Needs Assessment		**4**	**26.7**
Other Strategies		**11**	**73.4**
	Performance Review	2	18.2
	Manpower Inventory	2	18.2
	Management Request	5	45.4
	Change in Work Systems	2	18.2
Types			
By Purpose			

	Compliance	6	40.0
	Developmental	9	60.0
Level			
	Management	4	26.7
	Supervisory	5	33.3
	Ranks & File	6	40.0
Source			
	In-house		
	Outsourced		
Training Delivery			
Duration in hours	1-8 hours		
	9-16 hours		
	17-24 hours		
Timeliness			
	On-time		
	Late		
	Cancelled		
Status			
	Renewal		
	Newly Created		
Satisfaction Index			
	Requests		
	Complaints		
Organizational Impact			
	Knowledge, Skills and Attitude Deficiency		
	Contribution to annual targets		
Total No. of Trainers			**8**
Degree			
	Doctorate		
	Masters		
	Bachelors		
Work Experiences			
	1-5 years		
	6-10 years		
	11 years and above		
Certification			
	Certified		
	Non-certified		
Total No. of Trainees			**168**
Attendance			
	Full Completion		
	Drop Out		
	No Show		
Trainee Distribution			
Age			
	25-35		
	36-46		
	47-57		
	58 and above		
Occupational Group			
	Technical		
	Administrative		

Level of Position			
	Managerial		
	Supervisory		
	Rank & File		

In measuring higher order outcomes of trainings, the HRMD will have to decide whether to design a very complex data collection method or simply structure a survey questionnaire shown in Table 7.4. The proposed survey questionnaire is intended balance the opinion of supervisors and trainees on the indicators itemized below.

Table 7.4 Sample Survey Questionnaire

Supervisor				Indicators	Trainee			
Perceived Relevance of Training								
1	2	3	4	▪ Training is relevant to the job context.	1	2	3	4
1	2	3	4	▪ The training is relevant in preparation for a higher position/responsibility.	1	2	3	4
Trainability of Trainees:								
				▪ Motivation to learn	1	2	3	4
1	2	3	4	▪ Level of KSA before the training				
1	2	3	4	▪ Pre-training performance				
1	2	3	4	▪ Physical and mental preparedness	1	2	3	4
Trainee Satisfaction								
				▪ Training Contents	1	2	3	4
				▪ Methods and Activities	1	2	3	4
				▪ Classroom Conditions	1	2	3	4
				▪ Performance of Trainer	1	2	3	4
Learning Achievement								
1	2	3	4	▪ Achievement of Training Objectives	1	2	3	4
1	2	3	4	▪ Improvements in KSA	1	2	3	4
Learning Application								
1	2	3	4	▪ Opportunity to apply training	1	2	3	4
1	2	3	4	▪ Support to apply training	1	2	3	4
1	2	3	4	▪ Actual Application	1	2	3	4
1	2	3	4	▪ Improvements in Performance				
Work Motivation								
1	2	3	4	▪ Level of organizational commitment	1	2	3	4
1	2	3	4	▪ Absenteeism				
1	2	3	4	▪ Turnover				
1	2	3	4	▪ Willingness to render extra work hours	1	2	3	4
				Perceived CTD Image and Reputation				
1	2	3	4	▪ Preparedness	1	2	3	4
1	2	3	4	▪ Ability to translate policies into learning insights for learners (trainees)	1	2	3	4
1	2	3	4	▪ Quality of training management	1	2	3	4
1	2	3	4	▪ Responsiveness to the training needs of employees (subject to management approval)	1	2	3	4

Chapter VI
RECOMMENDATIONS

This chapter presents the researcher's reflections on implementation issues and further development of the proposed monitoring system. Additionally, it also indicates some avenues for further actions considered as beyond the scope of the study.

First, this paper recommends the continuing emphasis on maintaining and enhancing the quality of trainings. To achieve this, it must be realized that the concept of training quality entails a broader construct than the mere measurement of outcomes. Hence, it should cover the monitoring of all influential factors at different stages within the training system.

Second, the researcher recommends the continuing efforts to develop the proposed monitoring system. Since the study only covers the first-stage, the proposal including new entries as suggested by respondents will have to go through another assessment in the second-stage of implementing the Policy Delphi Procedure. Respondents, who are also the stakeholders of the training system, may further refine the proposal into what they perceive as more suitable and applicable to the organization.

Third, the eventual implementation of the proposed monitoring system entails the support and commitment of people within the organization. Since the decision on the structure of the proposed monitoring system is based on consensus among the stakeholders, it increases the probability of gaining more support from them. However, the study only covers 30 respondents compared to a total of 66 stakeholders among the four participating organizational units. The expansion of the research to cover all the stakeholders may provide a better test for the proposed monitoring system.

Fourth, in order for the proposed monitoring system to become successful, it must be afforded with the right people who are prepared and supportive to this undertaking, proper timing, and adequate resources. It is also important to know whether the organization is committed to change and advance particularly through trainings.

The fifth recommendation concerns the financial capacity of organizations to fully implement a monitoring system for trainings. In real work situations, it is almost impossible to gather information strictly for all the topics and indicators in the proposed monitoring system within a very limited budget. The proposed monitoring system is a broad and all-encompassing mechanism. However, organizations always have the prerogative to handpick topics and indicators which they think are the most useful depending on their priorities,

availability of budget and other resources. In spite of the importance in keeping a comprehensive view on trainings, it is emphasized that organizations have the option to be flexible, even practical, in the implementation of the proposed monitoring system. It would be ideal to consider some cost-efficient measures in implementing the monitoring system including decisions on the following:

1. Frequency of collecting information may be limited to a certain time of a year instead of doing a survey for all trainings conducted.
2. Randomly selecting trainings to be monitored as determinants of quality and performance rather than collecting information on all trainings.
3. Randomly selecting respondents (managers, supervisors, trainers or trainees) in tracking the status and quality of the trainings system.

Finally, this research recommends the logistics below to fully utilize the proposed monitoring system. The recommendation comes in the form of an action plan specifying the steps to ensure that the monitoring system, as shown in Table 8.1.

Table 8.1 Proposed Action Plan

Stage	Objectives	Persons Responsible	Course of Actions	Time Frame
Development	▪ Further develop the monitoring system by completing the stage II implementation of the Policy Delphi	▪ CTD Staff ▪ Select Respondents	▪ Provide Feedback to respondents the results of first stage data collection ▪ Integration of other HR measures that the management team of HRMD considers useful to the monitoring system Design instrument for stage II of Policy Delphi Procedure ▪ Tabulate and analyze, summarize findings and formulate conclusions ▪ Establish standards in comparing the means between and among the groups of respondents in assessing the usefulness of topics and indicators	1 month
Finalization	▪ Finalize proposal and submission to HRMD manager for approval	▪ HRMD Management Team ▪ CTD staff	▪ Design Data Collection methods and strategies for the monitoring system ▪ Identify implementation and maintenance costs, support staff, time frame, data required and the likes. ▪ Draft final proposal as agreed by Management team of HRMD ▪ Submit to HRMD manager for review, comments and/or approval	2 weeks

Implementation	▪ To introduce the monitoring system to the entire organization ▪ Ensure support from stakeholders (managers, supervisors, implementers and employees) ▪ Mobilize implementation of the monitoring system	▪ CTD staff ▪ Information Division ▪ Management Group of PNHA ▪ Employee representatives (if necessary)	▪ Mobilize information campaign and orientation programs on the purpose and benefits of the monitoring system by tapping on the Information Division ▪ To avoid negative connotations, tap on employee representatives to explain that the real intentions of the monitoring system is not to punish those who are found inadequate but rather to develop and fill-up gaps in performance and quality ▪ Ensure commitment and support by integrating the monitoring system to HRD policies. HRMD should initiate implementation and work by example to other departments ▪ Implementation is done by phase/stage as it slowly gets acceptance and support from people within the organization ▪ Distribution of monitoring forms to key personnel ▪ Data collection and summaries ▪ Provide feedback and reports to management staff on the strengths and weaknesses of the training programs/stakeholders ▪ Provide suggestions or recommendations on remedial actions	3 months (continuous)
Maintenance/ Monitoring Cycle	▪ Ensure that the continuity of the monitoring system	▪ CTD Staff ▪ HRMD manager	▪ CTD undertakes data collection and inputs to the monitoring system ▪ Compare standards to the data in the archives (monitoring system) and identify accomplishments and gaps ▪ Undertake and monitor remedial actions	(continuous)

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Annex A

Lorna M. Seraspe
Manager
Human Resource Management Department
National Housing Authority

Dear Ms. Seraspe,

This is in relation to the study I am conducting specifically on the "Proposed Monitoring System for In-house Trainings of the Philippine National Housing Authority". I would like to ask permission to conduct the study with the assistance of Career and Training Division staff and have access to necessary information on the organization's training system. This includes archives on corporate training policies, memoranda, programs and evaluation strategies. Moreover, the study will commence on 15th of April 2005 and proceed on the following schedule:

May 04, 2005 : Preliminary Research (background information)
May 16, 2005 : First Stage Data Collection
May 25, 2005 : Analysis and Design of new questionnaires
May 30, 2005 : Second Stage Data Collection (with feedback)

The details of the study are provided in the attached document (thesis proposal).

Thank you very much for your support and guidance.

Respectfully yours,

Lowella P. Liong
Sr. IRD Officer, MPPD
Researcher

Appendix B

Memorandum to Respondents

17 May 2005

For : **ALL CONCERNED DEPARTMENT MANAGERS/AREA MANAGEMENT OFFICE TEAM HEADS**

Subject : **RESEARCH RESPONDENTS**

A number of your staff has been identified as respondents to the study on designing a monitoring system for trainings.

The study is being conducted by our employee, **Lowella P. Liong**, Sr. Industrial Relations Development Officer, a Netherlands Fellowship Program Scholar, in completion of her course in Masters of Science in Human Resource Development at the University of Twente, the Netherlands.

Relative to this, **Viema M. Picazo**, shall directly meet with the respondents (see attached list) from May 18-24 to discuss the details of the study and the data gathering procedure.

Thank you for your support and cooperation.

LORNA M. SERASPE
Manager
Human Resource Management Department

Appendix C

The Questionnaire

I. Topics

In assessing the importance of topics in monitoring the quality of trainings, please keep in mind the three criteria, namely: relevance, priority and effectiveness. It is highly encouraged that you go through all the topics before you make a decision. Please encircle your choice for each item based on a scale of:

1 - Not at all
2 - Low
3 - Average
4 - High

TOPICS	Relevance				Priority				Effectiveness			
1. Number of trainings conducted based on needs assessment.	1	2	3	4	1	2	3	4	1	2	3	4
2. Records of financial resources for trainings.	1	2	3	4	1	2	3	4	1	2	3	4
3. Information about the types of trainings conducted.	1	2	3	4	1	2	3	4	1	2	3	4
4. Information on the distribution of employees who attend trainings (trainees).	1	2	3	4	1	2	3	4	1	2	3	4
5. Information on the trainability of trainees before they attend the training.	1	2	3	4	1	2	3	4	1	2	3	4
6. Information on the quality of trainers before they conduct trainings.	1	2	3	4	1	2	3	4	1	2	3	4
7. Information on trainee's perception on the relevance of trainings.	1	2	3	4	1	2	3	4	1	2	3	4
8. Information on the quality of the training delivery.	1	2	3	4	1	2	3	4	1	2	3	4
9. Information on the trainee's status of attendance (full-completion, drop-outs & no show)	1	2	3	4	1	2	3	4	1	2	3	4
10. Satisfaction of trainees after attending the training.	1	2	3	4	1	2	3	4	1	2	3	4
11. Level of learning achievement among trainees after the training.	1	2	3	4	1	2	3	4	1	2	3	4
12. Level of learning application when trainees go	1	2	3	4	1	2	3	4	1	2	3	4

TOPICS	Relevance				Priority				Effectiveness			
back to their jobs after the training.												
13. Level of work motivation of trainees after attending the training.	1	2	3	4	1	2	3	4	1	2	3	4
14. Information on the organizational impact or long term results of trainings.	1	2	3	4	1	2	3	4	1	2	3	4
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings.	1	2	3	4	1	2	3	4	1	2	3	4
16. Information on the extent to which the quality of previously conducted trainings affect future decisions of HRMD.	1	2	3	4	1	2	3	4	1	2	3	4
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings.	1	2	3	4	1	2	3	4	1	2	3	4

While assessing the importance of these topics to the monitoring of trainings, you might come across other important topics not mentioned in the list. You may write some suggestions on possible topics and make a brief description.

II. Indicators

Please assess the indicators listed below according to appropriateness and complexity of data gathering process. Once again, you are encouraged to read through the list before answering the questionnaire. Please encircle the value you would like to assign for each item on a scale of:

1 - Not at all
2 - Low
3 - Average
4 - High

INDICATORS	Appropriateness				Complexity of Data Gathering Process					
					Example	Scale				
1. Number of trainings conducted based on										
a. Performance Review	1	2	3	4	Inventory/Records Keeping	1	2	3	4	
b. Manpower Inventory	1	2	3	4		1	2	3	4	
c. Management Request	1	2	3	4		1	2	3	4	
d. Change in work systems	1	2	3	4		1	2	3	4	
2. Records of financial resources such as:										
a. total annual budget for trainings	1	2	3	4	Inventory/Records Keeping	1	2	3	4	
b. total actual expenditures on trainings	1	2	3	4		1	2	3	4	
3. Information about the types of trainings.										
a. classifying trainings according to purpose	1	2	3	4	Inventory/Records Keeping	1	2	3	4	
b. Classifying trainings according to source	1	2	3	4		1	2	3	4	
c. classifying trainings according to level	1	2	3	4		1	2	3	4	
4. Information on the distribution of employees who attend the trainings.										
a. Distribution by age	1	2	3	4	Inventory/Records Keeping	1	2	3	4	
b. Distribution by gender	1	2	3	4		1	2	3	4	
5. Information on the trainability of trainees before they attend the training such as:										
a. Level of preparedness of trainees before attending the training.	1	2	3	4	Survey Questionnaires	1	2	3	4	
b. Level of knowledge and skills that trainees possess before attending the training.	1	2	3	4		1	2	3	4	
c. Level of performance of trainees before attending the training.	1	2	3	4	Performance Evaluation	1	2	3	4	
6. Information on the quality of trainers before they conduct trainings.										
a. Educational background of trainers	1	2	3	4	Inventory/Records Keeping	1	2	3	4	
b. Number of relevant work experiences in conducting trainings.	1	2	3	4		1	2	3	4	
c. Percentage of certified trainers who conduct trainings	1	2	3	4	Inventory/records Keeping	1	2	3	4	
d. Competency profile of trainers	1	2	3	4	Survey Questionnaire	1	2	3	4	
INDICATORS	**Appropriateness**				**Complexity of Data Gathering Process**					
					Example	**Scale**				
7. Information on trainee's perception on the relevance of trainings.										

a. Trainee perception on the relevance of training contents to his/her job context.	1	2	3	4	Survey Questionnaire	1	2	3	4
b. Trainee perception on the relevance of the training to future career developments.	1	2	3	4		1	2	3	4
c. Trainee perception on the applicability of training knowledge and skills to current job.	1	2	3	4		1	2	3	4
8. Information on the quality of the training delivery.									
a. Duration of the training delivery.	1	2	3	4	Inventory/Records Keeping	1	2	3	4
b. Percentage of trainings conducted on time (timeliness).	1	2	3	4		1	2	3	4
c. Trainer-trainee ratio during the delivery of the training.	1	2	3	4		1	2	3	4
9. Number of trainees who attend and participate in trainings.									
a. Percentage of official trainees who fully completed the training.	1	2	3	4	Inventory/Records Keeping	1	2	3	4
b. Percentage of official trainees who dropped out before the end of the training.	1	2	3	4		1	2	3	4
c. Percentages of official trainees who din not show up in the training session(s).	1	2	3	4		1	2	3	4
10. Trainee satisfaction after attending the training.									
a. Level of trainee satisfaction on the contents such as principles, information, facts, and skills presented in the training.	1	2	3	4	Survey Questionnaire	1	2	3	4
b. Level of trainee satisfaction on the methods and activities used in the training.	1	2	3	4		1	2	3	4
c. Level of trainee satisfaction on the performance of the trainer during the training.	1	2	3	4	Survey Questionnaire	1	2	3	4
11. Level of learning achievement of trainees after the training.									
a. Level of learning improvements of trainees as a result of the training.	1	2	3	4	Survey Questionnaire	1	2	3	4
b. Extent to which the short-term objectives of the training are achieved.	1	2	3	4		1	2	3	4
12. Level of learning application when trainees go back to their jobs after the training.									
a. Information on the opportunity given to trainees in applying the training to his/her job.	1	2	3	4	Survey Questionnaire	1	2	3	4
b. Information on the support a trainee receives in applying the training to his/her job.	1	2	3	4	Observation	1	2	3	4
c. Information on the actual application of the training to the trainee's job.	1	2	3	4		1	2	3	4
13. Level of work motivation of trainees after attending the training.									
a. Information on the increased organizational commitment of trainees after attending the training.	1	2	3	4	Survey Questionnaire	1	2	3	4
b. Frequency of absenteeism and turn-over as a result of the training.	1	2	3	4	Records Keeping	1	2	3	4
INDICATORS	**Appropriateness**				**Complexity of Data Gathering Process**				
					Example	**Scale**			
c. Level of willingness of employees to render extra hours at work as a result of the training.	1	2	3	4	Survey Questionnaire	1	2	3	4
14. Organizational impact or long term results of trainings.									
a. Frequency of problems or deficiencies after the training.	1	2	3	4	Records Keeping	1	2	3	4

b. Degree of contribution of trainings to annual organizational targets.	1	2	3	4	Annual Corporate Performance Reports	1	2	3	4
15. Level of satisfaction of customers (managers) who recommend and approve the attendance of trainees to trainings									
a. Number of training request/demands from customers (managers) for the renewal or creation of new trainings.	1	2	3	4	Records Keeping	1	2	3	4
b. Frequency of complaints from customers (managers) about the contents, delivery and results of the training.	1	2	3	4	Records Keeping	1	2	3	4
c. Extent to which the training meets or exceeds customer expectations.	1	2	3	4	Survey Questionnaires	1	2	3	4
16. The extent to which the quality of previously conducted trainings affect future decisions of HRMD.									
a. Percentage of trainings renewed by HRMD.	1	2	3	4	Records Keeping	1	2	3	4
b. Percentage of newly created trainings.	1	2	3	4		1	2	3	4
c. Extent to which previous performance of the CTD in conducting trainings will justify future budget for trainings.	1	2	3	4	Divisional Performance Report	1	2	3	4
17. Information on the image and reputation of Career and Training Division (CTD) after conducting trainings.									
a. Management's perception on the capability of CTD to implement trainings.	1	2	3	4	Survey Questionnaire	1	2	3	4
b. Trainees' perception on the capability of CTD to implement trainings.	1	2	3	4		1	2	3	4

You may suggest other important indicators and include a brief description on the space provided.

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Thank you very much for your cooperation.

(Researcher)