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Impact of the Extension Program on MS Access to the Employees of a Manufacturing Plant at Laguna Technopark, Philippines

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Abstract
Training, is a key provider to the development of an organization's human capital and therefore to its competitive advantage, can no longer be evaluated solely on a cost basis. Namely, training programs will be expected by management to focus on producing outcomes that will address the external pressures, largely by affecting change or improvement in employee performance and achievement of business results. In particular, it is suggested that these case studies include examination of three critical components of the evaluation system: (a) the characters evaluators play in the evaluation process and the competencies and expertise that they must bring to the process; (b) methods and practices used to conduct the evaluations, especially in regard to strategies for time-saving, co-operation, collaboration, and communication between training professionals and the business owners whose employees' behavior and operations' results are in question; and (c) the use of enabling technology, especially in regard to data access, collection, analysis and reporting, and also including structure and definition of metrics and measurement classes.

1. Introduction

Donald Kirkpatrick (2005), whose work on training evaluation is the primary focus of this research, wrote about these same factors in a case study on the subject at the silicon chip manufacturer, Intel, "At Intel, training is a key strategic tool that ensures the corporation meets the challenges of this very competitive environment" [1]. Total quality management considers also continuous improvement on processes done by employees. This could enhance self-esteem while these employees are with the company. Training employees must be part of the budget of the company of the betterment of its human capital.

Because of the growing premeditated worth and importance of training, organizations spend more money today on training for the purpose of adult professional development than at any other time in history [2]. The investment on human capital should be a primary vision of the company which will eventually produce more profits in the long run. Databases should be included to be a priority of the training employees in manufacturing industries should consider. This would greatly help employees to work effectively for the company as a whole. Majority of the daily tasks of employees focus on product and customer databases.

Training, as a key provider to the development of an organization's human capital and therefore to its competitive advantage, can no longer be evaluated solely on a cost basis [3]. This paper includes evaluation of the training program on Microsoft Access by the employees of a manufacturing plant. Motivating employees to upgrade their knowledge and skills would be a factor of improving returns on investments in the long run.

1.1. Perspective on Evaluating Training

Evaluation is often looked at from four different levels (the "Kirkpatrick levels") listed below. Note that the farther down the list, the more valid the evaluation [4].

1. Reaction - What does the learner feel about the training?
2. Learning - What facts, knowledge, etc., did the learner gain?
3. Behaviors - What skills did the learner develop, that is, what new information is the learner using on the job?
4. Results or effectiveness - What results occurred, that is, did the learner apply the new skills to the necessary tasks in the organization and, if so, what results were achieved [5]?

Although level 4, evaluating results and effectiveness, is the most desired result from training, it's usually the most difficult to accomplish [6]. Evaluating effectiveness often involves the use of key performance measures -- actions such as faster and more reliable output from the machine after the employee has been trained, higher ratings on employees' job satisfaction questionnaires from the trained supervisor, etc. [7]. This is where following sound principles of performance management are of great benefit.

1.2. Suggestions for Evaluating Training

Typically, evaluators look for validity, accuracy and reliability in their evaluations [8]. However, these goals may require more time, people and money than the organization has. Evaluators are also looking for evaluation approaches that are practical and relevant [9].

Training and development activities can be evaluated before, during and after the activities [10]. The researcher conducted the following discussion further with the human resource personnel to identify needs of the employees and processed the following:

1.2.1. Before the Implementation Phase

- Will the selected training and development methods really result in the employee's learning the knowledge and skills needed to perform the task or carry out the role? Have other employee's used the methods and been successful [11]?
- Consider applying the methods to a highly skilled employee. Ask the employee of their impressions of the methods [12].
- Do the methods conform to the employee's preferences and learning styles [13]? Have the employee briefly review the methods, e.g., documentation, overheads, etc. Does the employee experience any difficulties understanding the methods [14]?

1.2.2. During Implementation of Training

- Ask the employee how they're doing. Do they understand what's being said [15]?
- Periodically conduct a short test, e.g., have the employee explain the main points of what was just described to him, e.g., in the lecture [16].
- Is the employee enthusiastically taking part in the activities [17]? Is he or she coming late and leaving early. It's surprising how often learners will leave a course or workshop and immediately complain that it was a complete waste of their time. Ask the employee to rate the activities from 1 to 5, with 5 being the highest rating. If the employee gives a rating of anything less than 5, have the employee describe what could be done to get a 5.

1.2.3. After Completion of the Training

- Give him or her test before and after the training and development, and compare the results [18]?
- Interview him or her before and after, and compare results?
- Watch him or her performs the task or conduct the role [19]?
- Assign an expert evaluator from inside or outside the organization to evaluate the learner's knowledge and skills?

2. Analysis and Interpreation of Data

Data collection is central to the evaluation process the human resource staff should collect both hard data (representing output, quality, cost, and time) and soft data (including work habits, work climate, and attitudes) [20]. The researcher collected data using a follow-up Questionnaire – Below is the table of answers provided by the employees after the training program:

Table 1. *Evaluation of Employee Trainees to the Training Program.*

EVALUATION OF EMPLOYEE TRANEES	MEAN SCORES	DESCRIPTIVE RATING
1. Overall Training Program	3.90	Very satisfactory
2. Design and Implementation of Ms Access		
2.1 Sequence and organization of Activities	3.68	Very satisfactory
2.2 Relevance and applicability of topics	3.85	Very satisfactory
3. Methodology used	3.70	Very satisfactory
4. Trainor's abilities:		
4.1 Mastery of subject	3.80	Very satisfactory

EVALUATION OF EMPLOYEE TRANEES	MEAN SCORES	DESCRIPTIVE RATING
4.2 Preparedness in presentation	3.90	Very satisfactory
4.3 Encouraged critical thinking	4.0	Very satisfactory
4.4 Communication Skills	4.0	Very satisfactory
5. Topic:		
5.1 Usefulness	4.0	Very satisfactory
5.2 Most like	4.0	Very satisfactory
5.3 Least like	3.68	Very satisfactory

Based on the table presented, majority of the employee trainees for this database software rated the training program to be very satisfactory. This only shows that these employees have a necessity to update their computer skills through constant follow ups with up to date resources in information and communications technology. Human Resource Management should have constant follow up training of employees for them to upgrade their skills and knowledge with recent developments in the industry. ICT is a fast faced productiveness which should be dealt accordingly and on regularly basis.

Action Plans – Isolating the effects of training is an often overlooked issue in evaluations. In this step of the process, explore specific techniques to determine the amount of output performance directly related to the program [22]. This step is essential because many factors influence performance data after training. The specific techniques of this step pinpointed the amount of improvement directly related to the program, increasing the accuracy and credibility of the calculation. Collectively, the following techniques were implemented by the proponent to provide a comprehensive set of tools to tackle the important and critical issue of isolating the effects of training.

Employees also recommended for additional follow up training for them to improve and enhance their skills for the betterment of the company as a whole. Employees gave comments addressing management to provide them further training and additional software to be implemented in the company for easier access and facilitates quality improvement over their progressions. Quality procedures will be needing this type of training in order for employees to be abreast with the changing times.

3. Conclusion and Future Works

Namely, training programs will be expected by management to focus on producing outcomes that will address the external pressures, largely by affecting change or improvement in employee performance and achievement of business results. In the case of this study, competitive pressures and the need to maintain a knowledgeable and skilled workforce were examined, but certainly other external factors can and should be considered. This will also help the training department understand the business issues that must be addressed and that potentially can be affected positively by the right training program.

Influence on employee achievement as trainees are as follows:

1. The positive bearing of the software use in training has not been proven. In general, and despite thousands of impact studies, the impact of ICT use on employee achievement remains difficult to measure and open to much reasonable debate. Although as in its immediate implementation, if employees are required to use the software immediately after the training would have a different impression on learning skills adoptable to employees.
2. Positive impact more likely when linked to instruction It is believed that specific uses of ICT can have positive effects on student achievement when software is used appropriately to complement a teacher's existing instructive philosophies.
3. Need for clear objectives. ICTs are seen to be less effective (or ineffective) when the areas for their use are not clear. While such a statement would appear to be self-evident, the specific goals for database use in training are, in practice, are often only very broadly or rather loosely defined.
4. ICTs are used differently in different training avenues. Uses of database for simulations and modeling applied for several office task have been shown to be effective as this could improve skills in employee daily tasks.
5. Access outside training affects impact. The relationships between in-class employee computer use, out of class employee computer use and employee achievement are unclear. However, employees reporting the greatest amount of computer use outside training are seen in some studies to have lower than average achievement. Employee trainees believe that databases make a positive difference in integrating the skills learned when employees go back to their places of work.

In studies that rely largely on self-reporting, most users feel that using database software make them more effective learners. Therefore, it is more likely that these evaluations would be conducted for the right reason and therefore generate the support needed to overcome the challenges of conducting them.

Having identified good reasons to conduct an evaluation helps to overcome the reasons not to conduct one, but even if there are good reasons such as those noted above, the negatives must still be dealt with. The most significant obstacles are access to data and available time. Knowing this will focus the evaluator on enablers, such as process and technology, to find solutions to address these problems. Level 3 and 4 evaluations may be difficult to do, but this study shows that they can be done and to good purpose.

Plan to consider the effect of intervening variables on both behavior and results. Without a thorough understanding of

the influence of these variables, it becomes difficult to isolate and see the influence of training. Plan in order to measure relationships among the outcomes of all levels of evaluation.

Have confidence that the data obtained will likely be valuable to the training department and to the organization. Kirkpatrick himself is a proponent of doing something rather than nothing. "Just get started," he admonishes practitioners. With the knowledge that others who have gone down this path have gotten valuable results, evaluators should move forward in their efforts confident that they can produce similar value for their organizations, if they follow the lead of those who have been successful.

One of the intriguing actions suggested by the findings of this study is that evaluators should begin the design and planning of their evaluation program.. This may perhaps be the most important implication of the study. Kirkpatrick insists that practitioners start their evaluation efforts. This is only true as a matter of expediency with regard to evaluation capabilities and competence, but when it comes to design and planning a whole system or model for evaluation, the findings suggest that it might be best to start with Level 4 and work backwards.

4. Recommendations

This study has been deliberately designed to support and encourage additional research on the usage and value of Kirkpatrick's four levels. It is suggested that this additional research take two forms: (a) new, yet similar descriptive studies that survey other groups of training professionals and Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. evaluation practitioners on the topic; and (b) case studies of organizations who are using Kirkpatrick Levels 3 and 4, especially among those who report that they obtain valuable data, measure relationships among levels, and consider intervening variables. The intention of these two lines of inquiry would be to continue monitoring trends, to expand the number and kind of variables under investigation, and to begin examining in greater detail the best practices of successful evaluation efforts.

In terms of data collection, the format of this study's survey instrument proved quite effective for moving participants through the survey and directing them to the appropriate questions in a logical fashion. The question types and sequencing of questions could be easily reused and, with appropriate changes to the content, could greatly expand the scope of examination while retaining a common ground between this study and any new research undertakings. It is suggested that even with the introduction and addition of other question types, the focus of these new descriptive studies could and should include the following:

- Additional external pressures that influence training expenditures
- Detailed expenditures and budget levels for training and for evaluation efforts
- Circumstances under which the four levels are used
- Differences in usage by industry and demographics of the organization
- Additional reasons why the four levels are used, and why they are not
- Value of the data in terms of additional measurement criteria
- Correlations of four level outcomes among other data points
- Consideration of additional intervening variables

Such studies could provide a wealth of new data that would enable evaluation practitioners to stay current with industry trends and find clues and indicators of successful best practices. These studies may also identify specific evaluation efforts worthy of greater scrutiny in the form of cases studies. Case studies of best practices. By using the findings of these suggested descriptive studies as guides, evaluators could then examine and report on case studies of actual evaluation efforts. In doing so, they would be able to access stories and examples of real success.

These organizations should be examined and queried thoroughly so that the industry—and especially the community of evaluation practitioners—can develop a more comprehensive, shared set of arti-facts of practice, including cases, stories, theories, rules, frameworks, models, principles, tools, lessons learned, and of course, best practices. In this way, the full potential of the Kirkpatrick taxonomy can be realized.

In particular, it is suggested that these case studies include examination of three critical components of the evaluation system: (a) the roles evaluators play in the evaluation process and the competencies and expertise that they must bring to the process; (b) techniques and processes used to conduct the evaluations, especially in regard to strategies for time-saving, co-operation, collaboration, and communication between training professionals and the business owners whose employees' behavior and operations' results are in question; and (c) the use of enabling technology, especially in regard to data access, collection, analysis and reporting, and also including structure and definition of metrics and measurement classes.

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Biography

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