

# The Concept Of Model Evaluation Kirkpatrick Plus Return On Training Investment (To Improve Public Services Of The Government)

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**Abstract.** This article is a literature review that analyzes and reviews various types of research related to the evaluation model of Kirkpatrick plus ROTI (Return On Training Investment) program at a training organized by the government. The purpose of this study is to provide an overview of the concept of evaluation of the Kirkpatrick plus ROTI model in measuring the results of the training that is tangible and intangible. Ideally, the activity of government employees that uses the state budget is measured in effectiveness and efficiency. Energy relates to the achievement of training objectives and the temporary impact of efficiency associated with the benefit of costs incurred on the benefits received. The Evaluation Model of Kirkpatrick plus RoTI offers a solution in measuring training comprehensively and accurately. This model is believed to select and provide comprehensive training information amid government efforts to reduce state budget expenditures due to the pandemic situation.

Keywords: Model *four-level Kirkpatrick*, *Return On Investment*, *Return On Training Investment*

## 1. Introduction

As a country that is spurring itself to align with developed countries, Indonesia conducts human resource development consistently and gradually through the activities of the State Apparatus Training. Based on the ministry of finance data, the budget in government efforts in encouraging bureaucracy and public services is more agile, effective, productive, and competitive by 526.2 T or when presented by 26.9% of total central government spending [1]. A lot of training and variety must be balanced with the accurate and precise evaluation so that the program is on target, contributes to the efforts to improve public services, and has a real leverage/impact for an institution [2]. Thus the budget used for the implementation of improving the competence of government employees in the form of education and training must be accountable for its effectiveness.

Every education and training program organized by every government agency must ensure that it evaluates the education and training program as a whole. Evaluation is a process of data retrieval that is systematically analyzed and then drawn a conclusion to then be used as a recommendation in decision making. The purpose of the evaluation is to describe and assess a program or activity. Program is all activities that must be carried out to achieve the organization's goals [3]. In this case, the evaluation of the program is a field of science that

can systematically and scientifically describe and measure the effectiveness and efficiency of training through various evaluation models [4]. Energy is related to achieving goals, while efficiency is related to the precise calculation between the costs incurred and the time of implementing the Training program.

Evaluation of educational and training programs is the process of determining the extent to which the goals and objectives of a program or project have been achieved, providing the information necessary to make decisions, comparing results with standards or benchmarks to identify gaps, assessing prices, and quality [5]. So critical was the evaluation of the program until Kirkpatrick said that the training is an integral part of implementing the movement itself. Evaluation is an activity that must be done for the overall trend to be carried out effectively (Kirkpatrick 1998).

In evaluating education and training programs conducted by an institution or institution, many models are used by evaluators such as CSE-UCLA Model, CIPP Model Evaluation, Brinkerhoff Model, Kirkpatrick model, CIRO model, Kirkpatrick Development model, and so on. Evaluation models with each other do seem varied, but the purpose and purpose are to conduct data collection activities or information and recommendations related to an object. There is no proper procedure for evaluating a program, all by the emphasis and interests, it brings [6].

In determining what type and evaluation model we will choose to evaluate a program, an evaluator will consider two things: the type of program to be assessed and the purpose or for what purpose an evaluation is done. The type of program is seen from the duration of time implemented, whether long or short. The program's objectives are seen from the level of gaps in the program towards the program's goals.

Based on evaluation models, the authors assessed Kirkpatrick plus RoTI (Return On Training Investment) evaluation model as appropriate in looking at the effectiveness and efficiency of training by measuring the return on investment issued by a training (Shelton Sandra, and George Alliger;1993). This is by the issue of the State Apparatus Training that spends a considerable amount of state budget, but the evaluation of its success is very little reported. Supposedly every program of state apparatus training aimed at developing employee competence can be calculated in monetary units to be compared with the costs incurred both from the state budget [7]. The consequence is that the use of state money to implement training must be accountable for its use. The form of accountability is seen by 1) the success of training, 2) the impact caused after implementing training, 3) the increase in public trust due to increasing services, 4) the financial return to institutional.

The purpose of the research in this writing is to provide an overview of the concept of evaluation of the Kirkpatrick plus RoTI (Return On Training Investment) model in measuring the results of the training that is pliable and intangible, especially training held by the budget derived from the state budget and paid. The following section in this paper contains a review of the related literature followed by a review section of the library, research methodology, and discussion.

## **2. Theoretical Framework**

In this section, the literature review explains several important variables, namely, evaluation of Kirkpatrick models and (RoTI) Return On Training Investment.

#### A. Kirkpatrick evaluation model

The four-level evaluation model was first known in 1959 when Donald L. Kirkpatrick wrote four series of articles titled "Techniques for Evaluating Training Programs" published in Training and Development, the American Society for Training and Development (ASTD) journal. The articles describe a four-level evaluation formulated by Kirkpatrick based on the concept of his desertion at the University of Wisconsin, Madison. Kirkpatrick, D., L. & Kirkpatrick J., D. presents three specific reasons for evaluating training programs: to justify training budgets by showing how they contribute to the organization's goals and objectives. Determine whether a training program is continued or not and obtain information on how to improve the training program in the future. To answer these three reasons, Kirkpatrick created his four-level evaluation model consisting of level 1 (reaction), level 2 (learning), level 3 (behavior), and level 4 (result) [8].

**Table 1.** Four Levels of Training Evaluation Criteria

Level	Criteria	Focus
1	Reaction	Satisfaction of the trainees
2	Learning	Understanding of knowledge, skills, behaviors, and work attitudes
3	behavior	Changes in behavior and attitudes in work
4	Result	Results achieved (quantitative)

Source: Summarized from Kirkpatrick & Kirkpatrick (2006)

Kirkpatrick's model has advantages because of its thorough, simple, and practical nature in various training situations [9]. Specific means that this model can see all sides of training simply because it has a structured logic flow and can be used to evaluate activity under various conditions.

In theory, the first basic model used by Kirkpatrick to create a four-level model is to ensure that the training budget can contribute to the goals or objectives of the organization/institution. This is relevant to the background of the problem taken and whether state apparatus training supported by the state budget can contribute tangible or intangible.

#### B. Return On Training Investment

The concept of return on investment made on the implementation of education is very similar to buy in the world of finance. The Theory of Human Resource Development underlies the birth of the estimated Return on Investment in Education based in the late 1950s. Human resources theory says that investing can increase productivity in the future [10].

Many mention this RoTI (Return On Training Investment) model as a fifth-level evaluation of the Kirkpatrick model. This model builds on the opinion that assessment should be based on financial calculations to provide accurate and precise information about training to organizational performance.

RoTI (The Return on Training Investment) method developed by Phillips is the last evaluation level to see the return on investment after the training is implemented. One of the uses of this method is for the company's management to see that training is not something expensive and only detrimental to the financial sector, but training is an investment. RoTI is a model used to explain and prove a practical training or not. ROTI provides a clear and accurate picture of training results by calculating and converting all benefits into monetary value. Phillips's ROI framework includes techniques used to evaluate the effectiveness of

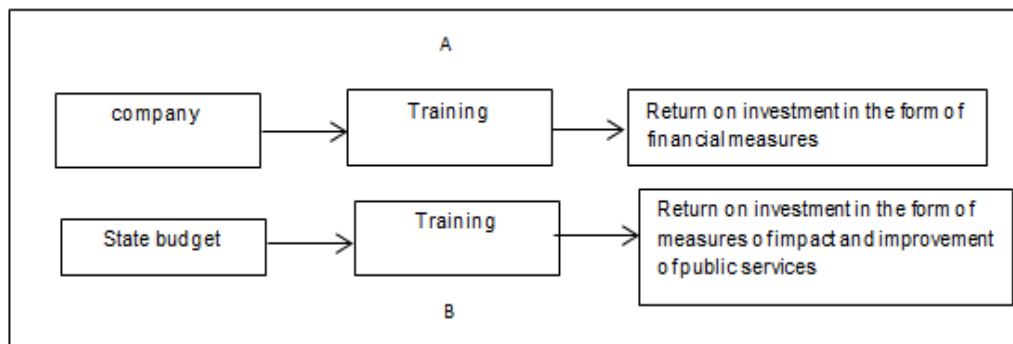
training programs. His approach estimates training impact by obtaining information directly from program participants and then having senior management make adjustments to the estimates. Adjustments are "essential because many factors will influence performance data after training [11].

Currently, companies/organizations should inevitably carefully calculate each amount of funds used to fund the implementation of training. This calculation should be done in the context of business results and return on investment [12]. This situation will undoubtedly continue to develop in line with the intense competition between companies or ever-changing challenges that will affect the course of the organization/institution.

Calculating Return On Training Investment usually adopts the financial position or balance sheet statements, calculating the benefits and costs that accompany them. The benefits and costs are divided into organizational benefits (Inside the organization) and social categories (outside the organization). Benefits and expenses include the monetary value of all non-monetary benefits and costs to be fully measured by the organization's internal efficiency and external efficiency [13].

Based on some discussions about Return On Training Investment (RoTI) above, the author believes that every training held by government agencies/institutions can be calculated effectively and efficiently through Kirkpatrick plus ROTI method. Organizations committed to putting forth the time, money, and effort required to ensure that training results are connected to a business need and result in a monetary benefit can employ several methods for doing this [14].

There are several differences of views/schemes written by researchers related to the output of training organized by the company and managed by state institutions/institutions.



**Fig 1.** Kirkpatrick Plus Return On Training Investment Evaluation Difference Scheme In Companies (A) And State Institutions (B)

### 3. Research Methods

This research is a type of literature research to analyze a relevant topic related to the problem to be researched. The method of this study is a literature review. Literature review (literature review, literature research) is a study that critically examines or reviews the knowledge, ideas, or findings contained in the body of literature, as well as the provision of information to solve problems cooper problems [15].

Writing a literature review requires appropriate techniques and steps. Bootie and Beile reveal: Writing an incorrect literature review is one of many ways to introduce a paper in detail. If the literature review is flawed, the rest of the article may also be considered flawed because "the researcher cannot conduct meaningful research without first understanding the literature in the field. [16].

The nature of this research is descriptive analysis, namely regular decomposition of data that has been obtained, then given understanding and explanation to be well understood by readers. Data sources obtained from national and international journals, books, and other reading sources that have been selected with the theme of research is the evaluation model Kirkpatrick plus RoTI (Return On Training Investment).

#### **4. Results and Discussion**

Evaluation of education and training programs should answer questions about (a) how successful education and training programs are in achieving their goals, (b) how the training program can be improved, and (c) how effective the education and training programs are. Evaluation of training programs should encourage improvement, provide information related to all components of the training, be accounted for in implementation and administration and increase the interest of the trainees. Therefore, the purpose of evaluating the most crucial training program is not to prove but to be improved.

The evaluation model of the Kirkpatrick Program plus Return On Training Investment provides a complete picture for those involved in the management of training programs. This is because this model will measure two aspects of training results, namely the effectiveness aspect and the efficiency aspect of a program. Aspects of effectiveness related to the extent to which the training objectives can be achieved, of course, accompanied by the resulting outcome. At the same time, the efficiency aspect relates to the utilization of the training budget in achieving the objectives of training. Effectiveness will be measured by the Kirkpatrick program evaluation model through its four levels, while efficiency will be measured by return on training investment calculation.

One of the weaknesses in training managers is that they cannot precisely measure whether the impact/changes caused by training participants result from the training that followed. Because many factors affect the activity of participants when returning to their place of origin, such as health, work situation, stress level, etc. So we can not be sure the amount of contribution diktat to the organization's purpose, while the costs incurred are not small. The Return On Training investment calculations tries to offer where there must be a clear and tangible contribution /return from the Training program implemented.

The evaluation model of Kirkpatrick Training plus ROTI program also provides a clear comparison between training programs implemented. The training program manager knows which training programs should be revised and even eliminated. This is in line with budget savings by the state due to the pandemic situation.

Thus the evaluation model of Kirkpatrick Training plus ROTI program, in general, can be applied to training organized by state ministries/ institutions. Several stages are passed according to the evaluation of this model, namely [17];

1. Level 1:Reaction, which measures the reaction of employee satisfaction to the implementation of training. Measurement of this level can use a valid and reliable instrument can be a questioner/questionnaire.

2. Level 2: Learning, which is measuring the extent to which employees understand the material delivered in three competency domains: Knowledge, Skill, and Attitude. This level measurement can use a valid and reliable instrument in the form of tests to measure all three abilities.
3. Level 3: Behavior, measuring the extent to which employees implement the understanding of competencies obtained in the work environment. This level measurement can use valid and reliable instruments using observation sheets and interview guidelines.
4. Level 4: Result, which measures how much impact the implementation of competency development programs on performance or the expected final result. This level measurement can use valid and reliable instruments using interview guidelines, document archival.
5. Level 5: calculate RoTI by means; a) isolate the factors of the influence of training to be believed how much the development program contributes to changes in the performance of an employee, b) convert data into the financial form.

The criteria that can be used in the calculation of RoTI by point 5 above as follows [18];

- a. isolate the factors of the influence of training so that it can be believed how much the development program contributes to changes in an employee's performance. Factors that can affect a person's performance, among others, the mental and physical abilities of individuals, the availability of clear, transparent, objective work standards, and prepared based on standard work standards; feedback/information that can be obtained quickly, often, precisely, accurately and objectively; conducive working situations and conditions, incentives / fair payroll system, the implementation of a good reward and punishment system and others.
- b. Convert data into the financial form. 1) Need assessment, if the competency development program is preceded by a need assessment activity that requires high costs; 2) Design and Development, the costs incurred to design and build competency development programs are usually calculated on average for 1 or 2 years; 3) Acquisition, if the competency development program is purchased from a third party: the purchase of licenses, materials, certificate fees, etc.; 4) Delivery, this cost component includes: teacher salaries, program materials, business trips, and facilities used; 5) Evaluation, costs incurred at the time of evaluating the program, mainly level 3 and 4 conducted after employees return to their respective workplaces, such as the cost of drafting and sending questionnaires and surveys conducted; and 6) overhead costs.

## 5. Conclusion

Evaluation is a systematic data retrieval process that is then analyzed to produce a value against a particular program. The goal is to consider whether a program is revised, continued, or eliminated.

Evaluation of the program is critical because the amount of budget of the training program of state employees is enormous. Thus it must be balanced by the success rate of the program. The efficiency and effectiveness of the Training program are measured its success to avoid the use of budgets are not on target, amid the state of power that is being depressed because of the covid pandemic situation.

The evaluation model of the Kirkpatrick Program plus Return On Training Investment provides a complete picture for those involved in the management of training programs. This

is because this model measures two aspects of training, namely the effectiveness aspect and the efficiency aspect of a program.

This article only analyzes the concept of the Kirkpatrick program evaluation model plus Return On Training Investment in general. Further research is needed to describe the calculation of Return On Training Investment in detail in the Training program that uses the government budget so that the objectives of training programs to government employees can encourage bureaucracy and public services that are more agile, effective, productive, and competitive.

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