

Overview of the Evaluation of Training Effectiveness for Education Management Staff using the Kirkpatrick Model

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ABSTRACT: The author presents an overview of studies on evaluating the effectiveness of training programs for management staff in the education sector. The article introduces and outlines the strengths and limitations of various models used to evaluate training effectiveness for educational management personnel, with particular focus on the four-level Kirkpatrick model. The author applied this model to assess the effectiveness of training programs for management staff at colleges in the Southwest region of Vietnam, based on survey responses from 762 participants. Based on the findings, several recommendations are proposed to further improve the quality and effectiveness of evaluations using the Kirkpatrick model.

KEYWORDS: Evaluation, training, effectiveness, management staff, Kirkpatrick model

1. Overview of research on evaluating training effectiveness for education management staff

Baldwin and Ford (1988) defined training effectiveness as follows: training is considered effective when learners are able to apply the knowledge, skills, and attitudes they have acquired to specific job tasks. Thus, effectiveness is understood in a straightforward way and partially overlaps with the notion that effectiveness simply refers to results. Training effectiveness refers to the outcome of the training process, whereby this process brings about changes in the learner's knowledge, skills, and attitudes, and their ability to apply these in practical work, contributing to positive outcomes in relevant activities.

Author Bob Mansfield (1989) stated that the effectiveness of training education management staff and principals is reflected in the positive changes in learners after the training. According to him, there is a correlation between increased knowledge and skills and the cost of learning. Author Shirley Fletcher (2000) emphasized that the effectiveness of training education management staff should be assessed by the extent to which they professionally perform their assigned duties.

According to Stiggins (2001), evaluating the quality and determining the effectiveness of training programs must be based on the following principles and standards:

- Standard 1: Evaluation must be based on clearly defined objectives and outcomes.
- Standard 2: Evaluation results should be used to develop further training or action plans.
- Standard 3: The evaluation method should reflect the training outcomes and provide the necessary evidence.
- Standard 4: Evaluations should include diverse evidence to ensure reliability.
- Standard 5: Evaluation should be designed to minimize subjectivity and error.

These standards have been accepted by many scholars and administrators and have been identified in empirical studies by educational researchers such as Wiggins and McTighe (1998), and Katz et al. (2005).

Dooley and colleagues (2001) also studied competency-based training for management staff, emphasizing the establishment of evaluation criteria and the collection of evidence for assessing management competency after training. Sources of evidence for evaluating training programs include: observation, interviews, analysis of training products, portfolio assessment, questionnaires and surveys, interviews and focus group discussions, audio and video recordings, samples of learners' work, self-assessment tools, and peer feedback during training (Wiggins & McTighe, 1998; Kelleher, 2003).

According to Guskey (2000, 2002) and Goodall et al. (2005), evaluating training programs is considered a crucial activity for the development and effective management of such programs. The evaluation of training programs for educational management staff and principals should also analyze their impact on schools and student learning. Evaluations should be conducted regularly to manage and improve training activities (Kelleher, 2003).

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2. Introduction to the Kirkpatrick model for evaluating the effectiveness of training programs for education management staff

2.1. Overview of the Kirkpatrick model

Donald Kirkpatrick (1996), in his article reviewing the evaluation model he originally developed in 1959, and in his book “Evaluating Training Programs: The Four Levels”, co-authored and published in 2006, reaffirmed his consistent viewpoint on the four-level approach to evaluating training effectiveness. He stated that this model offers a comprehensive and effective framework for measuring training outcomes.

Furthermore, in the 2006 revised edition, Kirkpatrick and his colleague provided detailed guidance tailored to various stakeholders, such as learners and training professionals, on how to evaluate training effectiveness. The book also presented 12 case studies from renowned organizations such as Defense Acquisition University, Microsoft, IBM, Toyota, and Nextel, showcasing real-world applications of the four-level evaluation model.

This book served as both a guide and concrete evidence supporting the process of evaluating training effectiveness using the four-level Kirkpatrick model.

The Kirkpatrick model has made a significant contribution to both scientific theory and practical management. This evaluation model focuses on assessing the effectiveness of training programs across four distinct levels (Kirkpatrick, 2006), including:

Level 1: Reaction

- The purpose at this level is to gather feedback from trainees regarding the training program. It evaluates the satisfaction level of trainees with the program content, organization of teaching, instructors’ style and methods, materials, tools, and learning environment. This information helps instructors and training managers improve and develop the training program.

Level 2: Learning

- Learning outcomes refer to the knowledge, skills, and attitudes acquired by the trainees after the training program. These are specified in the goals and content of the program. Evaluation at this level focuses on measuring the amount, extent, and scope of the knowledge, skills, and attitudes that learners have absorbed. The results at this level indicate what aspects of knowledge, skills, and attitudes have improved, expanded, or been enhanced after training.

Level 3: Behavior

- The aim here is to measure behavioral changes in the workplace after training. In other words, this level assesses whether and how trainees apply the knowledge, skills, and attitudes acquired during the training in their actual work, and how these applications improve their individual performance. Evaluation should focus on the extent to which trainees integrate what they learned into their daily tasks. Because this level assesses the application of learning, it is conducted after trainees return to their jobs.

Level 4: Results

- The goal of Level 4 is to measure the impact of the training on the trainee’s organization. The effectiveness of the training is assessed through its influence on the organization’s performance. This level is the most important, reliable, and persuasive, as it reflects the ultimate goal of training - bringing benefits to the organization.

Thus, Kirkpatrick’s model identifies four levels for evaluating training effectiveness. Emotional reaction and knowledge acquired are considered the basic levels in assessing training outcomes. These two levels can be seen as short-term indicators of the potential impact of training and development within an organization. Meanwhile, behavioral change and organizational impact are two additional measurement aspects representing long-term evaluations that indicate the steps toward achieving individual, managerial, and organizational goals.

Therefore, these four levels always complement each other. Without short-term evaluation measures, training risks conveying knowledge that is either non-transferable or irrelevant to the organization’s objectives. On the other hand, if behavioral changes and organizational impact are not properly assessed, the training may appear successful, but its benefits to the organization could be quite limited.

2.2. Advantages and limitations of the Kirkpatrick evaluation model

Advantages:

- Simple, easy to implement, and flexible;
- Focuses on results, helping evaluators systematically understand the outcomes of training.

Limitations:

- Requires varying amounts of information for each level; higher levels typically demand more data;
- Time-consuming and costly in terms of data collection and resource investment.

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2.3. Comparison of the Kirkpatrick model with other evaluation models for training effectiveness of educational management staff

No.	Model	Advantages	Limitations
1	Kirkpatrick Model	Simple and easy to understand. Widely applied and considered the starting point of training evaluation models.	If too focused on Level 1 and 2 evaluations, it may be affected by employee bias. To obtain accurate evaluation data, it requires input from other stakeholders in the training process.
2	CIPP Model	Evaluates the entire long-term process with a focus on the extent to which established goals are achieved.	Does not yet focus on the organizational performance results achieved through training.
3	CIRO Model	Continuously evaluates the entire process, starting with identifying training needs, training objectives, and tight integration with organizational culture and development goals.	Does not focus on developing measurement methods.
4	Phillip's ROI Model	Emphasizes economic efficiency. The ROI index can be an effective measure to assess whether to choose training or alternative methods.	Sometimes the effectiveness of training goes beyond economic concerns. In such cases, ROI does not reflect reality.
5	Kaufman Model	Refers to the social contributions of training and development activities.	Uses relatively complex terminology with a broad scope, which makes practical application difficult.
6	HRD Evaluation and Search Model	Emphasizes the causes and influencing factors of training and development.	Does not yet focus on the training process. Organizational results are affected by many factors.
7	Brinkerhoff's Six-Stage Model	Evaluates the process in short, medium, and long term. Ensures effectiveness evaluation according to stages.	The training model is relatively complex, making it difficult to apply in practice.

3. Application of the Kirkpatrick model to evaluate the effectiveness of training programs for management staff at colleges in the Southwest region of Vietnam

The author used the Kirkpatrick model with its four levels to evaluate the effectiveness of training programs for educational management staff at colleges in the Southwest region of Vietnam. This includes 13 provinces and municipalities: An Giang, Ben Tre, Bac Lieu, Ca Mau, Dong Thap, Hau Giang, Kien Giang, Long An, Soc Trang, Tien Giang, Tra Vinh, Vinh Long, and Can Tho. Information was collected using survey questionnaires from 762 respondents, of which 693 provided valid responses, as shown clearly in Table 1 below.

Table 1. General statistics of survey subjects and actual sample size collected

No.	Subjects	Overall scale	Actual samples collected
I	Management group, training program organizers (management staff)	135	121
1.1	Leaders, specialists from the Directorate of Vocational Education and Training (DVET), Ministry of Labor, Invalids and Social Affairs, and affiliated units	32	29
1.2	Leaders, specialists from Departments of Labor, Invalids and Social Affairs, and affiliated units	78	68
1.3	Lecturers participating in training	25	24
II	Learners who have participated in the training program	627	572
2.1	College principals, chairpersons of college boards	78	70
2.2	College vice-principals	81	73
2.3	Staff, lecturers in the leadership pipeline planning of colleges	468	429
	Total	762	693

(Source: Compiled from statistical reports of the Institute of Vocational Education Science, General Directorate of Vocational Training, websites of institutions, and the public disclosures reports of colleges in the 2022–2023 academic year)

The effectiveness of training for college leadership staff in the Southwest region of Vietnam was evaluated using Kirkpatrick's four-level model, with the following overall results: management staff, lecturers, and learners rated the highest satisfaction at Level 1: "Reaction and perception of the course" (average score = 3.82), followed by Level 2: "Learning outcomes" (average

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score = 3.80), and finally Level 3: “Behavior and application” and Level 4: “Results and impact on the college”, both with an average score of 3.78. The results are presented in Table 2 below.

Table 2. Overall evaluation results according to Kirkpatrick’s four-level model

No.	Evaluation Content	Average Score	Weighted number of variables by	Weighted average score	Percentage
1	Level 1: Reaction – perception and feedback on the course	3.82	6	22.92	32%
2	Level 2: Learning outcomes	3.80	4	15.20	21%
3	Level 3: Behavior – application	3.78	4	15.12	21%
4	Level 4: Results – impact on the college	3.78	5	18.90	26%
	Overall average score	3.795	19	3.797	100%

4. CONCLUSION AND RECOMMENDATIONS

The evaluation of the effectiveness of training programs for principals of colleges in the Southwest region of Vietnam using the Kirkpatrick model at four levels yielded the following results: management staff, lecturers, and trainees reported the highest satisfaction at Level 1 – Reaction, followed by Level 2 – Learning, and finally Level 3 – Behavior/Application and Level 4 – Results/Impact on colleges.

Based on the findings, some recommendations are proposed to improve the effectiveness of training programs for Vietnam college management staff using the Kirkpatrick evaluation model as follows:

Recommendation 1: Enhance effectiveness at Level 1 (Reaction)

- Develop a competency framework for vocational education management staff at all levels to serve as a foundation for standardizing training and professional development based on job positions.
- Conduct assessments of the quality of vocational education management personnel to design and plan suitable training programs for different target groups.
- Develop training programs and materials specifically for management staff, with a strong focus on addressing the unique needs of each locality and participant group.
- Improve flexibility in training delivery methods, ensuring easier access and participation for vocational education managers.
- Upgrade infrastructure, equipment, and teaching methods to create optimal conditions for active learner engagement in the classroom.

Recommendation 2: Enhance effectiveness at Level 2 (Learning)

- Promote discussion, group work, scenario-solving, and experience-sharing to deepen the exchange of knowledge and skills.
- Design appropriate assessment methods and develop criteria to evaluate the effectiveness of training programs for vocational education managers in general, and college principals in particular, as a foundation for ongoing improvement in training quality and effectiveness.
- Establish a dedicated unit or department responsible for organizing training programs for vocational education management staff.

Recommendation 3: Enhance effectiveness at Level 3 (Behavior/Application)

- Develop incentive and support policies for the training and development of vocational education management staff, especially for those working at colleges in disadvantaged areas of the Southwest region.
- Establish post-training support policies to assist staff in applying what they have learned.
- Grant autonomy to colleges in organizing and participating in professional development programs.

Recommendation 4: Enhance effectiveness at Level 4 (Results/Impact)

- Raise awareness among society and learners about the role and importance of vocational education in social development, as well as the role of vocational education managers in ensuring and improving the quality of vocational training.
- Complete and unify regulations related to the training and development of principals and vocational education management staff, particularly at colleges, to ensure clarity and ease of implementation.
- Regularly evaluate the quality and effectiveness of training programs, assessing both the impact on individual learners and on their institutions.

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