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Case Study

Kirkpatrick Model as Evaluation Training Program for Assessor: Case Study of Government Employee

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Abstract

The study analyzed the evaluation of training programs provided to prospective assessors at the Ministry of Energy and Mineral Resources. The object of study is a trainee who is projected as an assessor. The total number of participants was 23 people. Kirkpatrick's model served as the basis for evaluating the training program. The four evaluation levels analyzed include reactions, learning, behavior, and outcomes. The four stages of Kirkpatrick's model can provide a description of the training process and recommendation items to the organization. This recommendation is given for continuous improvement of training quality. Data analysis using a mix-method approach is due to the combination of primary and secondary data. The results of the study explained that the four levels in the Kirkpatrick model were adequacy in the implementation of the training program. The four models explain that all training components and processes are running well. Prospective assessors who are trained are given high expectations to remain in training at an advanced level. The evaluation level provides several recommendations including reformulation of training planning, learning related to accreditation standards, professional ethics-based behavior, and work results adjusted to excellent service accompanied by high quality. Recommendations on the results of training evaluations can be carried out to improve the quality of the program in accordance with the needs of the organization. Training should be conducted adaptively, with high flexibility, and new competencies for prospective assessors. The results of the training can make a significant contribution to the expectations of the organization.

Keywords: Competency Improvement, Kirkpatrick Model, Training Program.

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Introduction

Human resources are one of the components of organizational success (Gabčanová, 2011). This role is carried out to create job targets, strategies, innovations, and achieve organizational goals. Employees can be a determining factor in the success of achieving job targets (Bayraktar et al., 2017). Competence is one of the problems of organizing to survive in the era of globalization. This must be supported by the reliability of the technology used by employees. This process must be complemented by the formulation of training and education programs for all employees. The organization has an obligation to prepare employees in the operationalization of business processes. Training programs should be prepared according to the scale of business priorities.

Online-based training is a technicality of providing new competencies through virtual technology (Fauth & González-Martínez, 2021). The online learning system is implemented to meet the needs of users who emphasize technology-based learning. Online learning can create a virtual learning environment that encourages the effectiveness of training implementation. The use of website media allows more and more training data information to be obtained, providing more interesting and complete services. For this reason, ideally educators and participants always access various data information quickly. E-learning-based learning has not been utilized optimally, and there are frequent internet network disruptions (Kumar, 2015). At the end of a training program, an evaluation process must be carried out after the implementation according to the initial planning. Evaluation is very important in an education and training program to ensure the achievement of improving employee competence. Education and training evaluation is an activity process to obtain data information about teaching and learning outcomes experienced by students (Tasca et al., 2010). The results of the evaluation are used as an information base for the successful implementation of the training program.

The quality of the training program is determined by changes in behavior and work patterns. Behavioral alterations that include an improvement in abilities in the cognitive, affective and psychomotor areas. Training evaluation has a function as a controller of the process and results of the training program so that a systematic, effective and efficient training program can be guaranteed. Training evaluation is a process to collect data and information needed in measuring success on changes in work patterns accompanied by improved performance (Topno, 2012). Training evaluation is more focused on reviewing starting from the process, assessment, and impact of training associated with HR performance.

The Human Resources Development Agency of the Ministry of Energy & Mineral Resources has several training programs as part of improving employee competence. The objectives of implementing the training include producing assessors who meet state standards, improving the quality of teachers and competency examiners according to their fields, government employees getting recognition for the quality of competencies possessed, improving the quality and productivity of government employees through competency standardization with competency tests and improving a positive image through professional certification. This institution is under the coordination of the ministry which has the task of organizing the development of human resources in the fields of oil and gas, electricity, minerals and coal, new energy, renewable energy, energy

conservation, and geology. Government regulation number 23 of 2004 concerning the National Professional Certification Agency (BNSP) for this training was first implemented by BNSP in 2004 until now. Below are the labor needs in the fields of oil & gas, minerals & coal, and electricity as follows:

Table 1. Energy and Mineral Sector Labor Needs

Sector	Labor Needs
Oil & Gas	356.000
Mineral & Coal	350.000
Electrical	150.000

One of the training divisions at the Human Resources Development Agency of the Ministry of Energy & Mineral Resources has an accreditation agency. This institution is named Accreditation of Education and Training Institutions in the energy and mineral resources sector. Its main task is to ensure that the use of KKNI standards in all sectors can be implemented properly, recognition for the ESDM sector workers, increase the competitiveness of Indonesian workers from the invasion of foreign workers, ensure that foreign workers working in Indonesia have competencies according to business needs. The challenge ahead is to prepare assessors through education and training for the implementation of work implementation standards that can be implemented comprehensively by all companies engaged in the energy sector.

Based on data from the Ministry of Energy and Mineral Resources (ESDM), there were 93 accidents in mining areas in 2021, down 27.3% from the previous year. This number includes 36 minor accidents and 57 serious accidents. Of the 93 mining accidents in 2021, as many as 11 people died as a result of work accidents. Throughout 2019-2021, the number of mining area accidents has decreased, as has the number of deaths. The highest number of accidents and deaths occurred in 2019, with 133 accidents, of which 27 were minor accidents, 106 serious accidents, and 24 people died. There are several things that often cause accidents in the mining area, namely tools or safety systems that are not there, incomplete, and do not function properly. The process of training provided to employees for competence as accreditation assessors. This assessor is tasked with analyzing and measuring the feasibility of competencies given to the energy & mineral resources labor sector.

Some studies use the Kirkpatrick model as a basis for evaluating training programs (Alsalamah & Callinan, 2021; Dorri et al., 2016; Mehale et al., 2021). This model is suitable for seeing changes in behavior as a result of training provided to employees. Evaluation of training is not only in the form of a certificate and is given after attending the program. The result of training is that changes in work patterns, knowledge, and attitudes can increase performance productivity. This study evaluates the training program provided to assessors to ensure eligibility standards in assessing accreditation or implementation of work in a business organization or company. The assessor of this training is a government employee under the auspices of the Ministry of Energy and Mineral Resources (ESDM). Referring to the 2004 AECT definition of Educational Technology where in the definition there are efforts to improve performance by creating, using / utilizing and managing the right processes and sources of technology. From this

definition, researchers want to manage the process and improve performance by evaluating the assessor's training program to obtain information and data to be considered in organizing the assessor's training program.

This study analyzed the evaluation of training carried out by theBad an Human Resources Development Ministry of Energy & Mineral Resources. The focus of the research is the implications of the resulting training program for participants as potential assessors. The four levels evaluated include reactions, learning, behavior, and outcomes. Mapping the results of the evaluation is used as a recommendation for the quality of training in the depan. Training must be one of the human resource development programs equipped with new competencies. This assessor is the making of feasibility decisions to business people so as to produce quality in accordance with the standards set by the government. Training evaluations will be mapped and used as a constructive model of recommendations to the organization.

Literature Review

Employee Training

The main focus of training as a process to improve the knowledge, attitudes and skills of employees. Training can be defined as a systematic effort to improve the knowledge, skills, and work attitudes of employees through the learning process (Eby et al., 2019; Vijayabanu & Amudha, 2012). The training process is carried out consciously and deliberately to change human behavior both individually and in groups. The training process provided to employees systematically in the form of concepts, knowledge, and attitudes (Khan et al., 2020). These three elements are directed to realize the goals to be achieved by an organization or company. In other words, training is planned and continuous as a process designed to meet the present and future training needs of individuals through improving knowledge and skills. The ultimate goal of training in improving employee performance and work productivity (Waqanimaravu & Arasanmi, 2020). Organizations use training as part of efforts in developing human resources primarily focusing on intellectual abilities and personality. Training is carried out to develop the ability of human resources to support the needs in an increasingly modern era and business disruption. Training is considered to be a solution to make employees more qualified, increase insight and knowledge. The objectivity of training is directed to positive changes that correlate with the field of work. The implementation of the pelatih anmust be planned according to organizational needs and sustainable to produce cloud karyin the operationalization of business processes.

Training is one of the functions of human resources to provide the latest abilities and skills for employees (Dessler, 2020). Each employee is well prepared in the performance of job duties. The basic core of a training is to provide the latest knowledge, concepts, and skills related to the field of work. The focus of training is on providing specific skills and improving old work patterns implemented by employees. The selection of training methods is adapted to the conditions and needs of the organization. The direction of training is more emphasized on improving the abilities and expertise of employees in accordance with the field of work. The target of training achievement is to improve individual and team performance in a position or job function that is technical in

nature(Guan & Frenkel, 2019). The training process becomes integrative andcomprehensive according to the fulfillment of new competencies. An indication of the success of a training has a positive impact on employees and the organization. Several stages of training preparation include needs analysis, employee preparedness in participating in training, creating a learning context, execution of training programs by employees, formulation of training evaluation plans, choosing training methods, and the training evaluation process (Noe et al., 2009). Below is the training preparation process as follows:
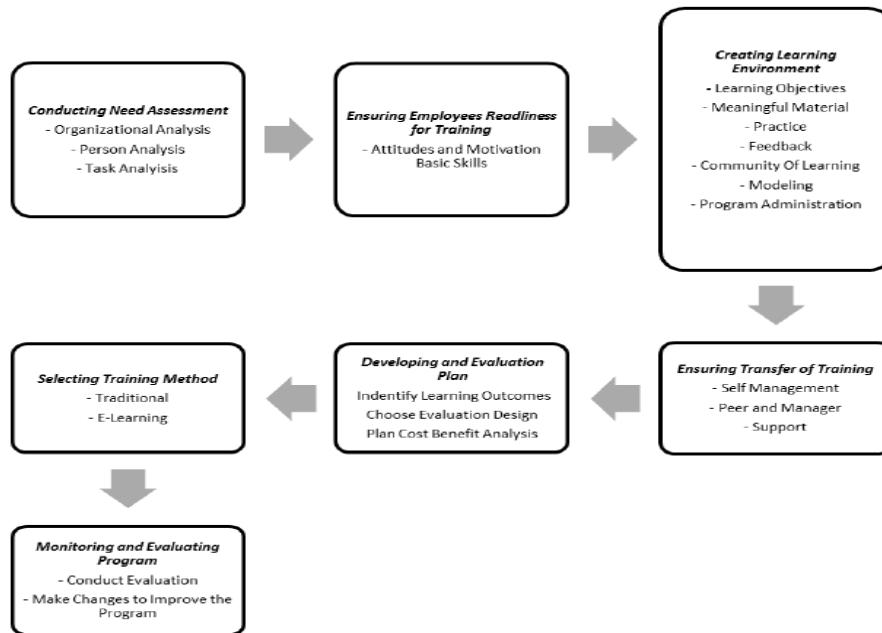

Figure 1. Training Preparation Process

Several studies explain that training has important implications in employee and organizational performance (Barba Aragón et al., 2014; Garavan et al., 2021). Training programs are created to be used as learning and organizational experiences so as to ensure the effectiveness of work. Organizations must carry out three initial stages, namely identification of training needs, implementation of training, and evaluation of training (Cohen, 2017; Teasdale et al., 2003). Identification of training needs is an activity for mapping problems and the urgency of implementing activities as part of organizational support in achieving business targets. At this stage the organization makes plans, training themes, methods, resource persons, and technical ones that are tailored to the needs of the work. The implementation of training is a process of training execution given to participants related to material, knowledge, skills, and practices directed at changing work patterns (Baethge-Kinsky, 2020; Cascio, 2019). This process gives new concepts and technicalities to employees according to the field of work. Training evaluation is the process of conducting a trial of training results to employees for practice in accordance with the field of work (Lantu et al., 2021; Mehale et al., 2021). The organization calculates the amount of cost with the results of performance implemented by employees.

Kirkpatrick Model

The Kirkpatrick model is a training evaluation model using four levels of success that have positive implications for the learning process (Sahni, 2020). The four valuation levels consist of level 1 (reaction), level 2 (learning), level 3 (behavior), and level 4 (results). Level 1 is an evaluation process that measures how learners react to training or in other words measures learning participant satisfaction (CAHAPAY, 2021). Level 2 is an evaluation process that measures the learning process in training, namely the transfer of knowledge (Kaufman & Keller, 1994). Level 3 (Behavior) is an evaluation process that aims to find out the extent to which behavior changes occur after participants take part in training (Reio et al., 2017). Level 4 is an evaluation process to measure the final results that occur after participants take part in the training (Reio et al., 2017). The end result can be an increase in productivity or performance, an increase in quality, a decrease in costs, a decrease in the rate of work accidents, an increase in sales, a decrease in the level of employee entry and exit, and an increase in profits.

A frequently used training evaluation approach is the Kirkpatrick model. The four levels used in the model can explain everything from the planning process to the results of the training program. The advantages of Kirkpatrick's model include a more comprehensive evaluation matrix, especially the focus of training aspects (cognitive, affective, & psychomotor), measurable evaluation objects on all components of training from inputs to outputs, and easier to apply to the evaluation process so that the interpretation of training data can be explained comprehensively (Ulum, 2015). Below is a picture of the evaluation level on the Kirkpatrick model as follows:

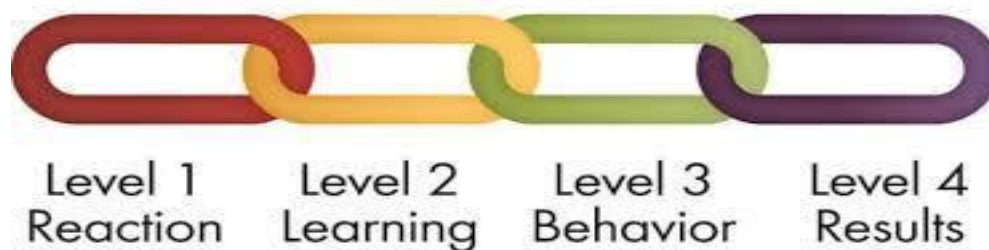Level 1 Reaction | Level 2 Learning | Level 3 Behavior | Level 4 Results

Figure 1. Kirkpatrick Model Evaluation Level (D. L. Kirkpatrick & Kirkpatrick, 2008)

Figure 1 shows the 4 levels present on the Kirkpatrick model. Level 1 shows the reaction of participants after attending the training. Indicators used by seeing participants have motivation, interest, and satisfaction in the training program. The aspects measured include the provision of materials, the availability of facilities, training media, activity schedules, and the presentation of consumption to training participants. Level 2 shows aspects of learning with changes in attitudes, knowledge, and skills after attending the training program. The measured components include knowledge, attitudes and skills as a result of learning from the training program. Level 3 indicates a change in the participant's behavior from the training process. Changes in behavior are expected in the presence of work patterns with positive implications for the achievement of job targets. The aspects measured are the strong desire for change by participants, participants' understanding of work activities, suitability of the work climate, and employee performance rewards. Level 4 shows the final result of the training process. The final result expected by the

organization is an increase in production quality, employee performance, cost efficiency, a decrease in work accidents, and employee retention. Below is the evaluation table of the training program with the Kirkpatrick model as follows:

Table 2. Four Levels of Kirkpatrick's Model Evaluation

No.	Evaluation Level	Evaluation Indicator
1.	Reaction	Training planning starts from the participants' guidance, instructors, context, facilities, and supporting facilities to participants.
2.	Learning	Learning process, interactive methods, instructor ability capacity, participant understanding speed, and punctuality
3.	Behavior	Changes in work behavior oriented towards profesi ethics
4.	Results	The quality of work is based on productivity,ima pr service, and customer satisfaction.

Table 2 shows the scope of evaluation on the Kirkpatrick model. At each level achievement indicators must be met on the basis of a training program. Indicators of measuring the level of reaction evaluated include committee services, quality of instructors, training curriculum, learning process, training materials, learning methods, classroom atmosphere, main facilities and supporting facilities, use of media and resources, value and meaningfulness of training content, assessment system. All levels can be used as a dimension for assessing the effectiveness of training programs. This model is suitable to be used as a basis for evaluating training programs to obtain the effectiveness expected by the organization. Based on the explanation of the theoretical review, the conceptual framework used as the basis for the research is as follows:
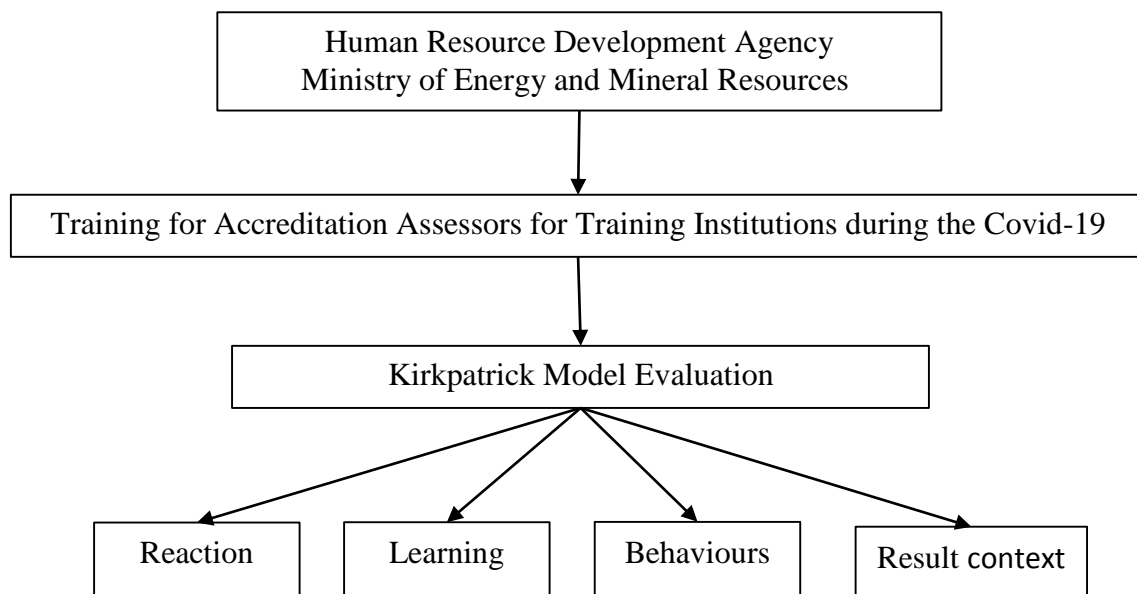

Figure 2. Research Concept (J. D. Kirkpatrick & Kirpatrick, 2016; Muslihin, 2017)

The picture above shows that the research focuses on the training program given to the assessor. The four levels used as evaluation targets are reaction, learning, behavior, and results. The training process is carried out online using the Zoom application. The problem faced by trainees is not focused and does not understand the material of the training material. Kirkpatrick's model served as the basis for training evaluation. All the levels in Kirkpatrick's model are able to explain well the training process and the results obtained to the participants. The hope of the training program is that there will be a change in the behavior, work patterns, and mindset of all employees in the company's business. Below are the evaluation indicators of training programs evaluated using the Kirkpatrick model as follows:

Table 3. Kirkpatrick Model Evaluation Dimensions and Criteria

Level Model Kirkpatrick	Evaluation Dimensions	Evaluation Criteria
Reaction	The relevance of training	Training serves to improve the career path of employees Have added value to the profession Have meaningfulness in the work environment Having a novelty for the improvement of the profession
	Materials and Exercises	The material is easy to understand Exercise Material according to the context The material is clearly developed
	Reaction to training instructions	Instructors use appropriate methods program training Instructors use strategies that match the training theme Instructors provide inquiring opportunities Instructors provide effective feedback to participants
	Facilities and procedures	Adequate facilities Training is carried out according to the schedule The organizer gives directions to the training procedure
Learning	Timeliness	Implementation of teaching and learning Completion of the learning process
	Application of Learning Methods	Variations in the delivery of learning methods Evaluation of the learning process

Level Model Kirkpatrick	Evaluation Dimensions	Evaluation Criteria
	Learning Evaluation	Knowledge Soft & hard skills
Behaviour	Character	Adding new knowledge Gaining authority in creativity in the workplace
	Attitude	Creative Innovative Motivation Adaptive Visionary Professional Responsiveness Problem solving Discipline Collaborate
	Behavior	Applying the knowledge gained in the workplace. Assist in solving problems in the workplace. Gives a new spirit in work.
Results	Reliable	Have integrity in duties and responsibilities. Responsibility in carrying out duties and obligations. Confidence and character in the face of problems.
	Moral	Upholding social norms. Prioritizing ethics and morality in his daily life.
	Professional	Always work with honesty and responsibility. Support the progress of the company. Prioritizing duties and obligations. Provides the best performance.

The table 3 explains that the evaluation focus at level 1 (Reaction) has several indicators consisting of materials, facilities, consumption, and instructors during training. At this level it is more focused on analyzing the training planning process along with its supporting facilities provided to all participants. Level 2 (Learning) has several indicators, namely the timeliness of learning and learning evaluation. This level emphasizes the aspects of evaluating the implementation time and participants' understanding of the training material. The speed of understanding of participants becomes a point of success in accordance with the expectations of time by the

organization. Level 3 (Behavior) has several indicators that are used as evaluation materials including character, attitudes, and behavior. The focus of this level puts forward changes in the pattern of kerja and the character of employees towards the training program. The organization's expectation is to improve performance with new competencies given to employees. The process of work performed by employees is becoming better and of high quality. Level 4 (Four) has several dimensions consisting of reliable, moral, and professional. The last level sees the character possessed by employees as the main principle in the implementation of work. Achievements that can be seen are consumer satisfaction, a decrease in the number of complaints, and an increase in the profitability of the organization. These four levels became the quadrant of training evaluation with the Kirkpatrick model.

Research Methods

The research uses a mixed qualitative approach. The research process uses a mix-method that aims at a combination of qualitative and quantitative processes according to the needs of data interpretation (Schindler & Cooper, 2014). Quantitative research is used to obtain information about the evaluation of organizers, teachers and trainees. Qualitative research is used to explore qualitative data in the form of input from respondents regarding training. The mix method is a combination of qualitative and quantitative research approach to analyze data tailored to your needs(Creswell, 2013). Kirkpatrick's model was chosen as the cornerstone of training evaluation to explore four aspects of employee performance improvement changes and processes. This evaluation model consists of 4 interrelated levels in explaining the training program. Level 1 (Reaction) is an evaluation level that measures how participants react to the training they are participating in, or in other words measures the satisfaction of learnersn. Level 2 (Learning) is an evaluation that measures the learning process in training, namely the transfer of knowledge. Evaluation at this level aims to measure participants' learning outcomes, including changes in attitudes, knowledge and skill improvement. Level 3 (Behavior) is an evaluation that aims to find out the extent of behavior changes after participants take part in the training. Level 4 (Results), which is an evaluation to measure the results or final results that occur after participants take part in the training.

The object of the training is the assessor participants who take part in the competency improvement program by the Accreditation Training Institute of the Human Resources Development Agency of the Ministry of Energy and Mineral Resources. The number of trainees was 23 people. The data collection process uses questionnaires that are distributed to trainees. Interviews were conducted with the leadership of the training institute to describe the competency program to the assessors. Below is a list of research informants as follows:

Table 4. List of Informants/Data Sources

No.	Evaluation Level	Data Assesment	Data Sources
1.	Reaction	Measuring and evaluating how training participants react and feel satisfied with the training they are participating in (customer satisfaction). Feelings/Perceptions.	Trainees
2.	*Learning*	Measuring and evaluating how training participants are able to change their attitudes, knowledge, skills as a result of participating in the training program. Skills, Knowledge, Attitudes	Trainees
3.	*Behaviour*	Implementation of training results in improving the competence of training alumni in supporting alumni work after returning to the work unit. Behavior changes	Trainees
4.	*Result*	The impact of training results in improving the performance of training alumni and / or organizations. Improved performance productivity	Trainees

The table 4 shows the data taken in the training program. The four levels that serve as the basis for training evaluation with the Kirkpatrick model. The data collection process uses Google Form through a questionnaire given to trainees. Interviews were conducted with one of the agency's leaders to identify the process of planning and implementing training programs in accordance with applicable rules. The data results are interpreted according to the research questionnaire. The four levels that are used as the basis for training evaluation are analyzed in detail according to indicators so as to be able to provide positive recommendations to the organization. Training evaluation is expected to provide recommendations both in terms of planning, program implementation, material quality, and implications for the organization. The Kirkpatrick model is an evaluation concept suitable for mapping the implementation of training programs both in terms of participants and organizational expectations (D. L. Kirkpatrick & Kirkpatrick, 2017).

The data analysis process uses descriptive statistics. Data taken from the questionnaire must pass validity and reliability tests. The validity test using r-statistical values must be greater than r-table. The reliability test using the Cronbach Alpha value must be greater than 0.7 These two values can infer the feasibility of research data. The interpretation of the data is seen from the average value of the questionnaire. The indicator set if you get a value of 3 is summed up sufficiently and above 4 is concluded good. The scales used are 1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree). The data is calculated descriptively and the average score will be used as the basis for evaluating the training program. The data analysis will be divided into four levels of the Kirkpatrick model so that it is able to map the level of training provided to employees.

Results and Discussion

Respondent Profile

The initial stage is a description of the respondent's profile. The number of respondents who were used as the object of study was 23 people. Below is a table of respondents' profiles as follows:

Table 5. Respondent Profile

Information	Data	Number	Percentage
Tenure	0-10 years	6	26%
	11-20 years	11	48%
	21-30 years	6	26%
Education	Bachelor	8	35%
	Master	14	61%
	Doctoral	1	4%
Age	25-30 years	2	8%
	31-35 years	5	13%
	36-40 years	1	4%
	> 40 years	17	74%
Gender	Male	20	87%
	Female	3	13%

Table 5 explains that the total number of respondents was 23 people. The working period is dominated by 11-20 years as many as 11 people (48%), 0-10 years as many as 6 people (26%), and 21-30 years as many as 6 people (26%). Education is dominated by 14 master's degrees (61%), 8 bachelor's degrees (35%), and 1 doctoral degree (4%). The age is dominated by over 40 years as many as 17 people (74%), 31-35 years as many as 5 people (13%), 25-30 years as many as 2 people (8%), and 36-40 years as many as 1 person (4%). The gender is dominated by men as many as 20 people (87%), and women as many as 3 people (13%). So, with the distribution of research respondents dominated by the productive age in the implementation of training programs. So, it is certain that research respondents can be used as a research information base. The second stage is the results of a four-level research questionnaire on the Kirkpatrick model.

Interpretation of Results

At this stage, the questionnaire has been distributed to 23 trainees. The process begins with a validity and reliability test. Validity test using indicators by looking at r-statistical values must be greater than r tebel (0.361) (). Test reliability using indicators by looking at Cronbach Alpha values greater than 0.7. Below are the results of the questionnaire validity test as follows:

Table 6. Data Validity Test

Number of Item	r-statistic	r table	Category
X1.1	0,707	0,361	Valid
X1.2	0,778	0,361	Valid
X1.3	0,863	0,361	Valid
X1.4	0,834	0,361	Valid
X1.5	0,679	0,361	Valid
X1.6	0,898	0,361	Valid
X2.1	0,863	0,361	Valid
X2.2	0,824	0,361	Valid
X2.3	0,848	0,361	Valid
X2.4	0,877	0,361	Valid
X2.5	0,915	0,361	Valid
X2.6	0,680	0,361	Valid
X3.1	0,815	0,361	Valid
X3.2	0,880	0,361	Valid
X3.3	0,863	0,361	Valid
X3.4	0,946	0,361	Valid
X3.5	0,878	0,361	Valid
X3.6	0,594	0,361	Valid
X4.1	0,564	0,361	Valid
X4.2	0,909	0,361	Valid
X4.3	0,882	0,361	Valid
X4.44	0,940	0,361	Valid
X4.5	0,855	0,361	Valid

The table 6 explains that all question indicators meet the validity standard. The r-statistic value is greater than the r-table (0.361). The questionnaire as a research information base meets the standards of research validity. Below are the reliability test results as follows:

Table 7. Reliability Test

Variables	Alpha Cronbach	Reliability Standards	Category
Reaction (X1)	0,878	0,70	Reliable
Learning (X2)	0,908	0,70	Reliable
Behavior (X3)	0,909	0,70	Reliable
Results (X4)	0,888	0,70	Reliable

Table 7 explains that all research variables meet the reliability aspect. This can be seen from the value of Cronbach-Alpha greater than 0.7. All research indicators meet reliability standards. So it can be concluded that the research database can be used as a basis for information and meet the standards of validity & reliability. The next stage is the results of a descriptive analysis at each level of training evaluation. Level 1 is the stage of participants' reaction to the components of the program. At this stage, questions

are given to provide a perception of the material, facilities, infrastructure, and training organizers. Indicators that have a value of 3-4 can be interpreted as sufficient and above 4 means satisfactory. Below is a table of the results of the average values at each evaluation level of the Kirkpatrick model as follows:

Table 8. Training Participant Level 1 Evaluation Results (Reactions)

No	Statement	Average	Category
1	The material has a suitability to the needs of the profession	3,7	Fairly
2	Having a novelty for the improvement of the profession	3,3	Fairly
3	Training has a use for career paths	3,1	Fairly
4	The instructor uses the appropriate method	3	Fairly
5	The committee gives directions to the training procedure	3,2	Fairly
6	Facilities are adequate	3,1	Fairly

Table 8 explains that the average on each question has an average value of 3. The trainees gave a fairly good score for the implementation of the training program. The components of the training program consisting of materials, facilities, infrastructure, services,and novelty content were positively assessed by respondents. The process of implementing training must be thoroughly evaluated to improve the quality of training programs according to the needs of the organization. This level 1 provides a positive description of the implementation of the training program to employees. The implementation process is considered good and can be improved according to the needs of the assessor profession within the Ministry of Energy and Mineral Resources.

Level 2 is a stage of learning obtained by participants from the training program. Respondents were given 6 questions to assess aspects of learning both technical, information technology, knowledge, professional ethics, and communication skills. At level 2, this explains the level of learning felt by training participants as part of improving the quality of competence as assessors. Below is a table of level 2 score results that show the learning of trainees as follows.

Table 9. Level 2 (Learning) Score Results of Training Participants

No	Statement	Average	Category
1	Gain technical knowledge that can help in the work process	3	Fairly
2	Gaining knowledge related to information technology	3,2	Fairly
3	Gain knowledge of organizational standards	3	Fairly
4	Gain knowledge about the values of professionalism as an assessor	3	Fairly
5	Gain knowledge about improving ethics as an assessor	3	Fairly
6	Gain knowledge about *public speaking*	3	Fairly

Table 9 explains that trainees give positive value to the learning aspects of the training program. All average scores on the question indicator are 3. The trainees get aspects of learning that are in line with the implementation of the training program. The training

program allocated to assessors provides knowledge both technical, information technology, professional ethics, organizational standards, and professional values as an assessor. This is very important in the implementation of the assessor profession must be carried out with the principle of high responsibility and transparency. Assessors are expected to be able to carry out work professionally. Training participants get new competencies in the form of public speaking. This material provides strategies to assessors with good communication competence to clients or the public. At level 2, it gets a positive assessment from the trainees. Below is a table of results of level 3 (behavior) values as follows:

Table 10. Trainee Level 3 (Behavior) Value Results

No	Statement	Average	Category
1	I get an increase in the results of work in accordance with the targets set by the organization	3,4	Fairly
2	Able to achieve work targets above existing standards	3,1	Fairly
3	After attending the Training Institute Accreditation Assessor training, I was able to help the organization to self-evaluate.	3,2	Fairly
4	After attending the Training Institute Accreditation Assessor training, I was able to adapt quickly to changes in work patterns.	3	Fairly
5	The material studied in the Training Institute Accreditation Assessor Training is able to provide encouragement to improve performance.	3,2	Fairly
6	I can develop training results by compiling/adapting to the situation and workplace conditions so as to increase its expediency.	2,8	Fairly

Table 10 explains that level 3 (behavior) is considered quite good by trainees. The average answer gets a score of 3 so the training program has positive implications for employee behavior. The training program is expected to be able to change the mindset, work pattern, and mindset of employees to work better according to organizational expectations. Positive behavior generated by employees affects performance comprehensively. The performance of individuals and organizations has a significant improvement in changes in behavior. Employees should be given adaptation and trial time to implement the entire knowledge provided by the training program. Prospective assessors who take part in this training program are able to have a positive impact on behavior change. Work patterns can be formed with the commitment of participants to apply all materials as part of improving organizational performance. Below the table of results level 4 values (results) as follows:

Table 11. Level 4 Value Result (Result) of Trainees

No	Statement	Average	Category
1	After attending the Assessor training I felt that there was an increase in performance productivity.	2,8	Fairly
2	Able to innovate according to their field of duty in order to realize a more effective and efficient policy strategy.	3,1	Fairly
3	Able to optimize all potential internal and external resources of the organization in the implementation of the policy strategy of the agency unit	3,3	Fairly
4	The effectiveness of the task is better in terms of speed, accuracy and thoroughness according to the work procedure	3	Fairly
5	After attending the Training Institute Accreditation Assessor training, the work improvement I felt had a positive impact on organizational performance.	3,2	Fairly

Table 11 explains that participants saw a fairly good rate for level 4 (results) aspects. Participants of the training program assess that all training programs are able to significantly improve the results of work. The results of the work are assessed by punctuality, effective problem solving, and a significant increase in consumer satisfaction. The client feels that the contribution of the trainee assigned as the assessor can work professionally. The training program contributes greatly to the results of the work performed by the assessor. The quality of accreditation results is used as the basis for quality improvement information according to the recommendations of the assessor. Level 4 (results) provides a comprehensive description of the results of the training program.

Organizational Implication

The evaluation results shown by Kirkpatrick's model level were judged quite well by the trainees. The effectiveness of the training program is able to be well planned and systematic. Material planning, selection of resource persons, and facilities have supported the implementation of the training program. Level 1 (reaction) explains that the implementation of the training program has good planning and preparation. The reaction of trainees is positive and there is still much to be improved on the sustainability of the training program. The quality of the training program is largely determined by the formulation of planning according to the needs of the organization (Krötz & Deutscher, 2021). The organization has the hope that with the implementation of an effective training program it is able to correlate positively with employee performance. The positive reaction from the trainees was able to provide a positive stimulus for the sustainability of the competency improvement program to all employees (Cheng & Lunn, 2016).

Level 2 (learning) shows that the training process has been carried out quite well. Trainees are able to understand and practice it on the work process. The training process provides some technical ability, technological knowledge, professional ethics, and responsibilities as an assessor. All learning contexts provided by the training program can be used as new competencies as assessors. The assessment process carried out by the assessor must meet the standard standards according to the provisions of the government. The effectiveness of the learning process largely determines the quality of the training

program(Lourenco & Ferreira, 2019). The positive implications obtained by the organization are that all employees or assessors are able to carry out work according to regulations, job standards, and professional ethics. The impact of performance changes will be directly felt by organizations with new capabilities and competencies owned by employees(Bozionelos et al., 2020; Stamatelatos & Brooks, 2020).

Level 3 (behavior) indicates that the training process is able to change the work patterns of employees. Participants assessed that the training program had a positive impact on changes in work behavior. Positive work behavior is able to improve the quality of business processes (Carlucci et al., 2020; Muchiri et al., 2020). Assessors as trainees are expected to have professional work behavior, high dedication, responsibility, and commitment to carry out all accreditation regulations. Professionalism and professional ethics must be carried out responsibly by the assessor. The training program is considered to have a positive impact on changing participant behavior. Organizations have a positive impact on changes in the quality of work. Business processes run by assessors are able to be carried out properly according to professional ethics.

Level 4 (results) indicates that the training process has an impact on the achievement of employee performance. Participants assessed that the training program was able to increase work productivity. The expected work results by the organization are able to be achieved to the maximum by employees. The assessor is able to provide work results according to standards and accreditation provisions from the government. Participants are given improved abilities from both technical, conceptual, use of information technology, and standard procedures for measuring accreditation. Assessors are able to increase work productivity with maximum service to the community, private sector, and stakeholders related to the energy sector. The implementation of the training program must achieve high quality performance expectations. It will go according to the good expectations of the organization, employees, and the quality of work.

Recommendation from Impact Training Program

Evaluation of training programs provided to improve the skills and abilities of employees in job achievement. Prospective assessors who are given training are expected to have competencies according to organizational needs. Kirkpatrick's model provides four dimensions of reaction, learning, behavior, and outcomes. Mapping recommendations is given specifically through the following figure:
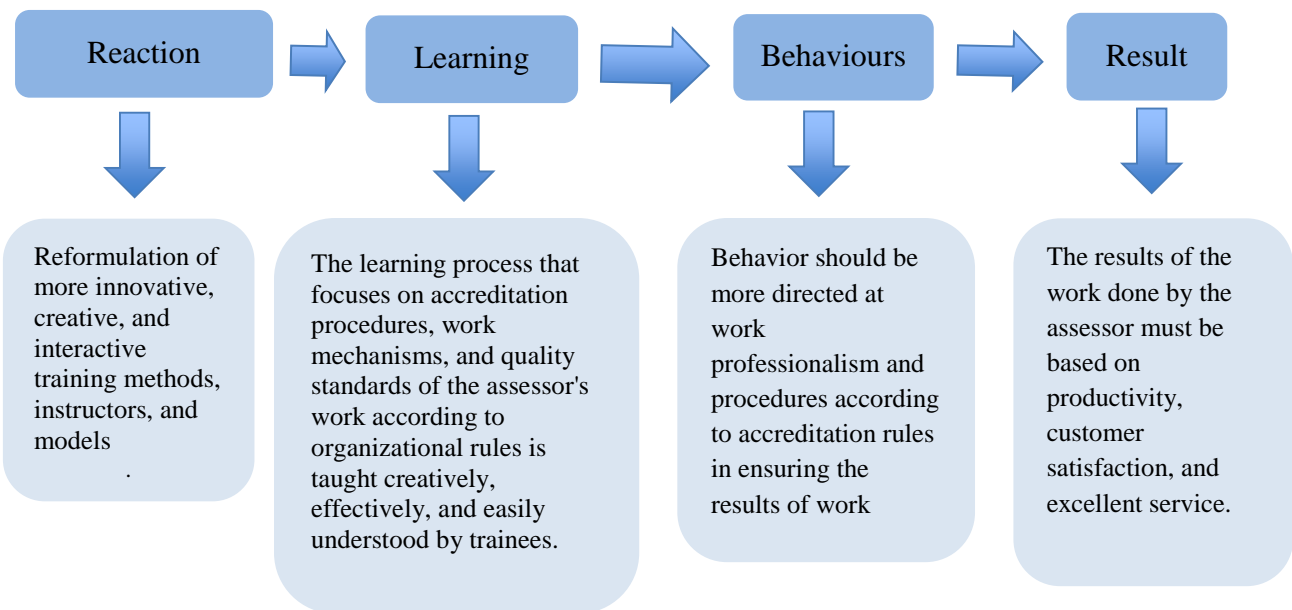
Reaction	Learning	Behaviours	Result
Reformulation of more innovative, creative, and interactive training methods, instructors, and models .	The learning process that focuses on accreditation procedures, work mechanisms, and quality standards of the assessor's work according to organizational rules is taught creatively, effectively, and easily understood by trainees.	Behavior should be more directed at work professionalism and procedures according to accreditation rules in ensuring the results of work	The results of the work done by the assessor must be based on productivity, customer satisfaction, and excellent service.

Figure 2. Training Evaluation Recommendation Model

The four models conceptualized or the Kirkpatrick model provide four recommendations. First, at the reaction level, it provides recommendations, namely the reformulation of more innovative, creative, and interactive methods, instructors, and training models. At this level the organization must make planning and redesign of training in the implementation of training programs. The selection of methods and infrastructure determines the quality of training. The balance of theory and practice must be obtained by trainees. Program training should be in accordance with the needs of quality accreditation on the energy environment and mineral resources. The business processes carried out by business people are in accordance with the security and quality of the government. The learning level provides recommendations, namely the learning process that focuses on the ethics of the assessor's professionalism according to organizational rules taught creatively, effectively, and easily understood by the trainees. The training method can be done both online and face-to-face. This level leads that the training program improves learning about the ethical concepts of assessor's professionalism. Training participants are directed to carry out a profession in accordance with the job standards set by the government. The learning method can be done both online and offline. This condition is adjusted to the level of the pandemic and the material presented to the training participants.

The third level recommends that behavior should be more directed at work professionalism and procedures according to accreditation rules in ensuring the results of work. This level expects an improvement in the behavior produced by prospective assessors through the training program. Participants understand the implementation of accreditation assessments in accordance with government standards. This guarantees that the business processes carried out by the client are in accordance with the procedures set by the government. Professionalism should be the jargon of the assessor in carrying out work according to high quality standards. The fourth level recommends that the work done by the assessor should be based on productivity, customer satisfaction, and excellent

service. The work process must be carried out with high quality by the accreditation assessors. The determination of accreditation must be based on the principles of transparency and accountability. High productivity, customer satisfaction, and excellent service must be carried out comprehensively. The exercise program will be continued according to the context and business needs of the organization.

Conclusion

This study concluded that the four levels in Kirkpatrick's model are sufficient to provide a comprehensive evaluation of the training program. The training program is considered sufficient and effective in carrying out the organization's business processes. The four levels in Kirkpatrick's mode are able to provide participants with a comprehensive overview of the evaluation of the training that has been carried out. Organizations must act reactively and responsively to business changes. Assessors must be equipped with new knowledge related to measurements, issues, and scale analysis related to the work process. The results of the evaluation are considered sufficient with several strategic recommendations as part of improving the quality of the training program. This research can be continued with different contexts such as implications with business processes, objectivity of organizational needs-based training, and leadership interventions in training planning. It's a different context to the case study approach. The results of the training can be analyzed from a variety of different points of view according to the research problem.

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