The Effectiveness of Evaluation of Hardskill Training from Kirkpatrick Model PT Pertamina Hulu Rokan

Name : Amelia Rahmita Johar

Student Number : 20311222

Department: International Specialization

Management Program : Human Resources

FACULTY OF BUSINESS AND ECONOMICS

ISLAMIC UNIVERSITY OF INDONESIA

YOGYAKARTA

2025

THE EFFECTIVENESS OF EVALUATION OF HARDSKILL TRAINING FROM KIRKPATRICK MODEL PT PERTAMINA HULU ROKAN

A BACHELOR DEGREE THESIS

By:
AMELIA RAHMITA JOHAR
Student Number: 20311222

Defended before the Board of Examiners
on September 22, 2025 and Declared Acceptable

Board of Examiners
Examiner I

Jaya Addin Linando S.E., MBA. September 22, 2025

Yogyakarta, September 22, 2025
International Undergraduate Program
Faculty of Business and Economics
Universitas Islam Indonesia
Dean

(Johan Arifin, S.E., M.Si., Ph.D.)

THE EFFECTIVENESS OF EVALUATION OF HARDSKILL TRAINING FROM KIRKPATRICK MODEL PT PERTAMINA HULU ROKAN

Internship Final Project

Compiled and submitted to meet the final exam requirements to obtain a Bachelor's degree in Management Study Program Faculty of Business and Economics, Islamic University of Indonesia

By

Amelia Rahmita Johar

20311222

FACULTY OF BUSINESS AND ECONOMICS

UNIVERSITAS ISLAM INDONESIA

YOGYAKARTA

2025

APPROVAL PAGE

THE EFFECTIVENESS OF EVALUATION OF HARDSKILL TRAINING FROM KIRKPATRICK MODEL PT PERTAMINA HULU ROKAN

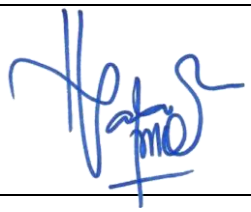
INTERNSHIP REPORT

Written By:

AMELIA RAHMITA JOHAR

Student Number: 20311222

Approved by

Content Advisor	
Jaya Addin Linando S.E., MBA.	**September 19th, 2025**
Language Advisor	
	
Ata Muftihah, S.S., S.Pd	**September 19th, 2025**

ACKNOWLEDGMENT

By mentioning the name of Allah SWT, the Most Gracious, the Most Merciful, the author would like to express his gratitude for His presence, who has bestowed His grace, guidance and inayah on the Author, so that the Author can complete the thesis proposal entitled "**The Effectiveness of Evaluation of Hardskill Training from Kirkpatrick Model PT Pertamina Hulu Rokan**" In preparing this thesis proposal, the author has encountered many obstacles and barriers. Therefore, the author would like to express his gratitude to all parties who have contributed to the making of this thesis. Without their help, it would certainly be difficult to obtain this bachelor's degree. Therefore, the author would like to express his gratitude to:

1. M. Johar Makmun and Nurmalia as the author's parents whom the author loves very much who are tired of making sacrifices, giving motivation both morally and materially, who have provided a comfortable place to study. The author believes that to be able to reach this point thanks to the prayers and consent of his beloved father and mother.
2. Mr. Abdur Rafik, SE., M.Sc., CSA., ASPM. as Head of the Management Study Program, Universitas Islam Indonesia
3. Mrs. Katiya Nahda, S.E., M.Sc. as Secretary of the International Program Management Study Program.
4. Mrs. Andriyastuti Suratman, S.E., M.M. dan Mrs. Ata Muftihah, S.S., S.Pd. as the final project supervisor who has taken the time to provide input, guidance and constructive motivation to the author until this final project was completed properly.

5. Mr. Jaya Addin Linando S.E., MBA. as a lecturer who taught, guided, and directed me in the process of working on this thesis.
6. To Desmi Femitri, Reka Syafrina, and Helena Redha Conesia as mentors and leaders, they patiently provided guidance, knowledge and motivation throughout my journey. They support have been a valuable source of inspiration for me in overcoming every challenge. They always provides encouragement, valuable advice, and is an example that I will always remember throughout my life's journey.
7. To the Author's friends during college Athaya, Indah, Keisha, Salma, Tsamara. Adel who always provide support in any situation and accompany the Author in compiling the final assignment and also often take the time to refresh every time.
8. To Difla, Nabilla, Lulu, Mael, Diyan, Ica, Vaza, Jef, Rafi, Zafer, Dhandi, Moza, Ragil and friends of IUP Management 2020 who cannot be mentioned one by one, thank you for the togetherness that builds the spirit and support given until now.
9. To Windah Basudara, NCT Dream, and BTS who always entertain and provide motivation when the Author feels stressed while working on her final project.

All contributions and supports provided by the above parties are very meaningful for the author in completing this final assignment. Hopefully the results of this study can be useful and provide positive contributions to the author and readers.

TABLE OF CONTENTS

CONTENTS ..... **i**
LEGALIZATION PAGE ..... **ii**
ACKNOWLEDGMENT ..... **iii**
TABLE OF CONTENTS ..... **iv**
LIST OF TABLES ..... **vi**
LIST OF FIGURES ..... **vii**
ABSTRACT ..... **viii**
ABSTRACT ..... **ix**
CHAPTER I INTRODUCTION **1**
1.1 Company Profile 1
1.2 Background 4
1.3 Problem Formulation 8
1.4 Research Questions 8
1.5 Research Benefits 9
CHAPTER II LITERATURE REVIEW **10**
2.1 Training 10
2.2 Training Effectiveness 10
2.3 Hardskills Training 14
2.4 Training Quality 17
2.5 Employee Training 21
2.6 Kirkpatrick Evaluation Model 22
2.7 Employee Performance 24
2.8 Relevant Research 26
CHAPTER III RESEARCH METHODS **28**
3.1 Research Approach 28
3.2 Population and Sample 29

3.3 Research Flow 30
3.4 Research Methods 34
CHAPTER IV FINDINGS AND DISCUSSION 37
4.1 The Impact of Training Quality on Work Performance 37
4.2 Evaluation of Hard Skills Training Implementation Using Kirkpatrick Model.....63
4.3 Analysis of Factors Affecting the Effectiveness of Hardskill Training on Performance.....64
4.2 Discussion 66
CHAPTER V RECOMMENDATIONS 69
5.1 Conclusion 69
5.2 Recommendations 70
REFERENCES 71
APPENDIX 73

LIST OF TABLES

Table 2.1 Evaluation Levels 23
Table 3.1 Analysis of The Results of The Kirkpatrick Model 32
Table 4.1 Trainee Satisfaction Survey Results 37
Table 4.2 Training Material Suitability Survey Results 39
Table 4.3 Results of Training Material Suitability Survey 41
Table 4.4 Training Method Survey Results 54
Table 4.5 Organizational Support Survey Results 59

LIST OF FIGURES

Figure 1.1 Organizational Structure of PHR 3
Figure 4.1 Graduation Percentage 57

ABSTRACT

The Effectiveness of Evaluation of Hardskill Training from Kirkpatrick Model PT Pertamina Hulu Rokan

Training is a form of mentorship that encourages increased learning efficiency, which is geared towards changes in individual performance in their work or responsibilities. This study is a qualitative research of descriptive analytical studies with a cross sectional study design. This research was conducted at PT. Pertamina Hulu Rokan which is located at Camp Jl. Rumbai, Lembah Damai District. Coastal Route, Pekanbaru City, Riau 28266. This study uses a quantitative research method with descriptive data analysis techniques. The sampling method in this study is a total of 30 employees sampled from a total population of approximately 900. The selection of a sample of about 30 employees was due to limited data due to low questionnaire results. The sampling technique uses Simple Random Sampling. The research flow will consist of preparing interview topics, collecting data, processing, interpreting and analyzing data, formulating recommendations for improvement, and drawing conclusions. The results of the study show that hard skills training at PT Pertamina Hulu Rokan is effective in increasing positive reactions of trainees, significant learning, and positive behavior change. This research also shows that hard skills training can improve employee performance and competence. Therefore, PT Pertamina Hulu Rokan can maintain and improve the quality of hard skills training to improve employee performance and competence. This research can make a significant contribution to PT Pertamina Hulu Rokan in improving the quality of hard skills training and achieving organizational goals.
Keywords: effectiveness, evaluation, training, hardskill, kirkpatrick model

ABSTRAK

Efektivitas Evaluasi Pelatihan Hardskill dari Kirkpatrick Model PT Pertamina Hulu Rokan

Pelatihan adalah bentuk bimbingan yang mendorong peningkatan efisiensi pembelajaran, yang diarahkan pada perubahan kinerja individu dalam pekerjaan atau tanggung jawab mereka. Penelitian ini merupakan penelitian kualitatif studi analitis deskriptif dengan desain studi cross sectional. Penelitian ini dilakukan di PT. Pertamina Hulu Rokan yang berlokasi di Camp Jl. Rumbai, Kecamatan Lembah Damai. Rute Pesisir, Kota Pekanbaru, Riau 28266. Penelitian ini menggunakan metode penelitian kuantitatif dengan teknik analisis data deskriptif. Metode pengambilan sampel dalam penelitian ini adalah total 30 karyawan yang diambil sampelnya dari total populasi kurang lebih 900. Pemilihan sampel sekitar 30 karyawan disebabkan oleh keterbatasan data karena hasil kuesioner yang rendah. Teknik pengambilan sampel menggunakan Simple Random Sampling. Alur penelitian akan terdiri dari menyiapkan topik wawancara, mengumpulkan data, mengolah, menafsirkan dan menganalisis data, merumuskan rekomendasi untuk perbaikan, dan menarik kesimpulan. Hasil penelitian menunjukkan bahwa pelatihan hardskill di PT Pertamina Hulu Rokan efektif dalam meningkatkan reaksi positif peserta pelatihan, pembelajaran yang signifikan, dan perubahan perilaku yang positif. Penelitian ini juga menunjukkan bahwa pelatihan hardskill dapat meningkatkan kinerja dan kompetensi karyawan. Oleh karena itu, PT Pertamina Hulu Rokan dapat mempertahankan dan meningkatkan kualitas pelatihan hardskill untuk meningkatkan kinerja dan kompetensi karyawan. Penelitian ini dapat memberikan kontribusi yang signifikan bagi PT Pertamina Hulu Rokan dalam meningkatkan kualitas pelatihan hardskill dan mencapai tujuan organisasi.

Kata kunci: Efektivitas, Evaluasi, Pelatihan, Hardskill, Model Kirkpatrick

CHAPTER I
INTRODUCTION

1.1 Company Profile

PT Pertamina Hulu Rokan (PHR), which was established on December 20, 2018, is a company that acts as an operator in the management of the Rokan Working Area (WK) for 20 years starting from August 9, 2021 to August 8, 2041.

PHR also carries out the duties of Pertamina's Upstream Subholding to manage business activities and operations of upstream oil and gas businesses in Region 1 - Sumatra. Through these two roles, PHR has become one of the main oil and gas producers in Indonesia that contributes to the fulfillment of national energy.

Regional Working Area 1 – Sumatra stretches from Aceh Province to South Sumatra Province, which is divided into four zones, namely:

Zone 1

Zone 1 covers 11 areas, namely Off the Coast of North Sumatra (NSO), Glagah Barat Kambuna, Rantau, Pangkalan Susu, BOB CPP, Siak, Kampar, Lirik, Jambi, Jambi Merang, and Jabung which are located in Nanggroe Aceh Darussalam, North Sumatra, Riau, Jambi and South Sumatra.

Rokan Working Area (WK) (Zone 2 and Zone 3)

The Rokan Working Area (WK) includes oil and gas operations from 104 fields, all of which are located in Riau Province. Some of the largest fields

in the Rokan WK include Minas, Duri, Bangko, Bekasi, South Balam, Kotabatak, Tani, Pematang, Petapahan and Pager.

Zone 4

Zone 4 includes 8 fields, namely Ogan Komering, Raja Tempirai, Ramba, Koridor, Prabumulih, Limau, Pendopo, and Adera, all of which are in South Sumatra Province.

The area managed by PHR with most of the old fields is a challenge for PHR to continue operating and producing while maintaining an economic level, without neglecting operational safety and environmental protection aspects.

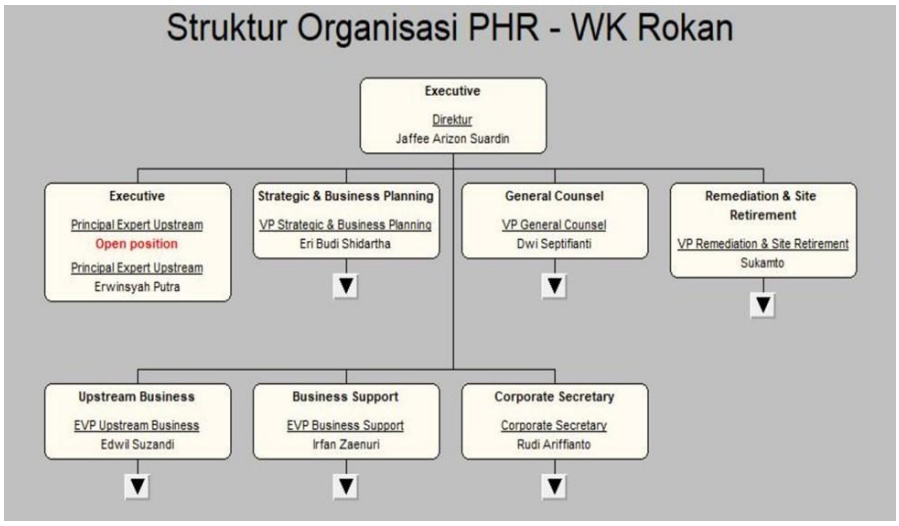
As part of the big family of PT Pertamina (Persero) and Pertamina's Upstream Subholding as the parent company, PHR will continue to innovate to provide its best in an effort to contribute to the country's energy security.

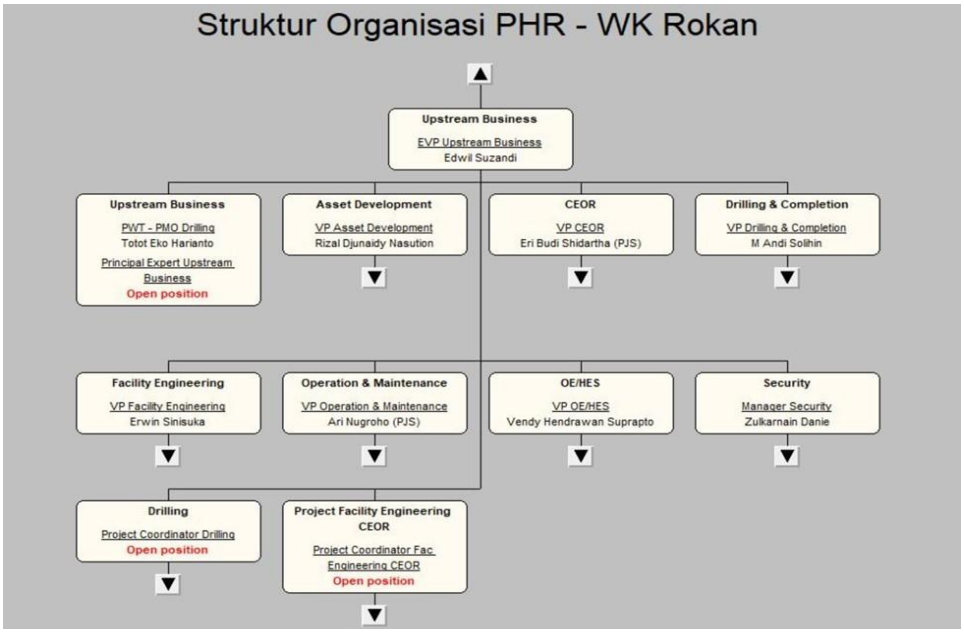
WK Rokan has been in production since 1952 and currently employs ~2,500 workers and more than 20,000 contractors and has 80 active fields with ±11,300 wells with an operational area of ~6,200 km covering 7 districts/cities in Riau province. WK Rokan has operated 17 floods with ± 65 primary and steam flood operations (steam injection) in Duri and is one of the largest steam flood operations in the world (330 MBSWPD). WK Rokan has made many contributions during its operation to the national and regional economy, including producing ±163MBOPD, 30% of the total production of the Upstream Subholding or 26% of the total national production, producing 1005 elevators for consumption at PT. KPI and become a company that increases regional revenue through a 10% participating interest in BUMD.

WK Rokan also often receives awards at the national and international levels, including MURI for its achievement of Most Development Well Drilling, Best Partnership in Internship Award from Pertamina University,

PHR also won gold for the Assisted Elephant Conservation in Indonesia SDGs Award (ISDA) and became the Best Oil and Gas Contractor IOG SKK Migas Event 2022.

Figure 1. Organizational Structure of PHR





1.2 Background

One of the important resources in an organization is human resources (HR). It is essential that HR is recognized by all levels of management in any organization. Even though technology is developing rapidly, humans still play an important role in the success of the organization. Therefore, human resources are required to continue to develop and train their knowledge and skills. The same goes for corporate organizations. To maintain the quality of knowledge and productivity of the company, competent human resources are needed.

Training is a form of mentorship that encourages increased learning efficiency, which is geared towards changes in individual performance in their work or responsibilities. The role of training is crucial in ensuring that these changes improve performance from an unsatisfactory level to a better level, and from an adequate or above-average level to be more successful and successful (Aziz, 2019)

According to Ida Fauziyah, Minister of Manpower (Menaker), based on a survey by World Bank Companies, less than 10 percent of companies in Indonesia provide formal training. This figure is quite low compared to neighboring countries. For example, China is 80 percent, the Philippines is 60 percent, and Vietnam is 20 percent. With productivity levels in Indonesia still relatively poor compared to neighboring countries, this has been confirmed by the measurement of Gross Domestic Product (GDP) since 2011, causing the gap between the skills needed by companies and the skills possessed by the workforce to often be a problem. Employers utilize training as an integrated process to ensure their employees are working to achieve the company's goals. Through a performance management approach, training programs are designed to align with the company's goals and are given to employees to help them achieve those goals (Aziz, 2019).

According to the Minister of Manpower, there are several factors that cause labor training in companies to be low, including fairly high training costs, burdensome severance pay, not getting the right skills training to face challenges and minimum wages that are not commensurate with labor productivity so that human resource funding is reduced. The company spends a lot of money to facilitate things outside of training.

Based on the results of the author's interview at PT. Pertamina Hulu Rokan, information about employee performance was obtained. Where in January 2023, there was a work accident at PT Pertamina Hulu Rokan (PHR) Siak Regency, Riau which caused one of PHR workers to die due to being hit by FOSV (Full Opening Safety Valve) iron while drilling an oil well, which hit his head and hands. victim. This incident occurred because the ceiling air host was moved from the outside of the monkeyboard to the monkeyboard to return the ceiling to its position and the FOSV iron load detached from the shurlock and hit the victim. From this incident, the Director General of Criminal Investigation of the Riau Police, Kombes Asep Darmawan, designated three suspects with the initials BC as drills, OF as floormen, and AF as propellers. Three suspects were charged under Article 359 of the Criminal Code on the basis of negligence in work that was not in accordance with the Standard Operating Procedures (SOP) which resulted in the victim's death. According to the SOPs that apply in PHR, the use of FOSV is not allowed as a weight. FOSV should only be used in the event of a stray explosion in the oil pipeline.

This data is strengthened by the official news release issued by Suara.Com on January 23, 2023, where the accident was experienced by an employee who served as a floorman at PT. Asindo Citraseni Satria, who is a partner of PHR, became a victim while in PHR's work area, precisely at the ACS-06 Minas 5D-28 rig. This work accident was caused by a Full Opening Safety Valve (FOSV) that fell and hit the victim on the Work Platform (WPF), causing fatalities. This accident is confirmed by the following statement,

"PHR President Director Jaffee A. Suardin directly expressed his condolences to the victim's family members when met at the Minas Health Center. On behalf of himself and all PHR and Pertamina workers, we pray that he will be given the best place by Allah SWT and that the family left behind will be given fortitude and sincerity," said Corporate Secretary of PT Pertamina Hulu Rokan, Rudi Ariffianto, quoted Friday (20/1/2023).

This resulted in a decrease in the number of production, resulting in delays in order fulfillment. The impact of the accident also increased production costs due to repair costs, severance pay to the victim's family and increased demand for raw materials which also had an impact on the increase in cost of goods sold. Furthermore, an analysis process was carried out to determine the cause of the accident using the FMEA method. From the results of this analysis, it is known that work accidents are caused by workers' negligence in paying attention to the proper use of tools, for example, routine maintenance that is neglected and lack of monitoring of tools and materials. This then leads to material fatigue, excessive wear, or even tool system failure.

By referring to the results of the analysis of the cause of the accident, PT. Pertamina Hulu Rokan takes strategic steps to implement the overall concept of quality assurance with one of the focuses being employee evaluation. In the previous training process, PT. Pertamina Hulu Rokan has not implemented the PDCA method and has not conducted an evaluation process for the training. An evaluation needs to be carried out to see the impact of the success of the training. An evaluation will be conducted to see if the training has a significant influence on employee knowledge, especially in the Manufacturing division. According to experts, training evaluation is a series of processes that are carried out systematically with the aim of assessing whether the training that has been carried out can run effectively and efficiently, and achieve the goals that have been set (Ananda, 2024).

According to Rina (2020), the Kirkpatrick method is the simplest and easiest model to apply. This model involves four different levels of evaluation,

ranging from reaction evaluation that helps in understanding participants' responses and engagement during training. Learning evaluation measures the extent to which participants understand the material and skills being taught. The behavioral level evaluates the application of knowledge and skills in the context of daily work, while the outcome level assesses the impact of training on the company's goals.

Good employee performance can be realized through various things, including training, providing incentives, providing satisfaction to employees, and so on. Among these things, training is the most appropriate way to improve employee performance. In order for this training goal to be achieved, the success of the training is the main thing that needs to be considered by the company's management. The success of a training program can be judged by the effectiveness of its implementation.

Training effectiveness in general is the level or level of success of the training in achieving its goals. The effectiveness of training can be assessed through training evaluation. Bassi, Gallager, and Schroer (1996) stated that 96% of companies conduct training evaluations using the Kirk Patrick evaluation model. This evaluation model consists of reactions, learning, behaviors, and outcomes. A meta-analysis of research over the past 40 years conducted by Twitchell, Holton, and Trott (2000) shows the use of Kirk Patrick's four-level evaluation model as follows: Level 1 (86-100%), Level 2 (71-90%), Level 3 (43-83%), Level 4 (21-49%). Level 1 and Level 2 are more widely used because they are the easiest evaluations to do, besides they don't require a lot of money. Meanwhile, Level 3 and Level 4 have a high complexity, require quite a lot of time and money, so they are rarely implemented by companies.

Based on the percentage of use of Kirk Patrick's training evaluation model above, the effectiveness of the training referred to in this study is the effectiveness assessed from the level that has the highest percentage, namely the first stage (reaction) or the response of the trainees to the training carried

out. Training evaluation has a very important role in knowing the extent of the success of the training program implemented.

Due to problems related to work accidents at PHR, Occupational Safety and Health (K3) training is an important factor that must be paid more attention to by companies. This training is important to avoid and minimize work accidents that occur in the future. So in the case above, the researcher wants to examine through the evaluation of the training that took place at PT Pertamina Hulu Rokan using the Kirkpatrick Evaluation Model, to find out whether the training went well and whether it had an impact on the performance of employees and the company.

1.3 Problem Formulation

From the problem that occurred above, which caused an accident in one of the workers, the researchers wanted to know: This study investigates the impact of training quality on work performance, implementation of Work Operational Standards, and evaluation of hard skills training using the Kirkpatrick Evaluation Model at PT Pertamina Hulu Rokan, following a workplace accident.

1.4 Research Questions

Based on the formulation of the problem above, the objectives of the internship to be achieved from this internship activity are:

1. How does the quality of training affect work performance using the Kirkpatrick Evaluation Model at PT Pertamina Hulu Rokan?
2. How to evaluate the implementation of hard skills training using the Kirkpatrick Evaluation Model at PT Pertamina Hulu Rokan?

1.5 Research Benefits

Various related parties have benefited greatly from conducting this research, including:

A. For Researchers

1. Find out how existing theories are used in the classroom and how relevant they are to the world of work.
2. As a study that compares the theories and practices learned by students in lectures with actual conditions in the field.

B. For Companies

1. Provide opportunities for students to learn more about the company.
2. It is hoped that the results of this research can be useful input for PT Pertamina Hulu Rokan Pekanbaru City Unit.

CHAPTER II

LITERATURE REVIEW

2.1 Training

Companies can assess the performance of each employee who has been given training and placed in a specific position. If employee performance improves, the company can retain employees for as long as the company needs them. Employee performance is the achievement of the results of work that has been done by employees in carrying out their work with responsibility in terms of quality and quantity. This statement is explained in (Siahaan & Bahri, 2019). According to (Meidita, 2019), training is an activity to form or equip employees by improving skills, abilities, knowledge and behavior so that employee behavior is in accordance with what the company wants (Yoga, 2022).

According to (Hartono & Siagian, 2020) training is one way to train skills, so that input will be provided optimally so that the company's expected goals can be achieved optimally. According to (Meidita, 2019) training is an activity to form or equip employees by improving skills, abilities, knowledge and behavior so that employee behavior is in accordance with what the company wants. Meanwhile, according to (Subroto, 2018), training is an activity to improve employee work skills that are useful for achieving company goals (Yoga, 2022).

2.2 Training Effectiveness

2.2.1 Understanding Training Effectiveness

Steers (1980) in Meitaningrum, Harjanto, & Siswidiyanto (2013) stated that effectiveness is the capacity of an organization to acquire and utilize valuable resources as intelligently as possible in teaching operational

objectives. Devi and Shaik (2012) define effectiveness as the ability to produce the desired effect. The effectiveness of training and development can be measured by the average time it takes to diagnose a problem, the success rate of the training instructor, the overall employee productivity, ROI (Return on Investment), and customer or trainee satisfaction.

From the various definitions above, effectiveness can be interpreted as the ability of an organization to achieve precisely planned goals. Thus, training effectiveness is the company's ability to achieve precisely planned training objectives. The effectiveness of training can be measured by conducting training evaluations.

2.2.2 Training Evaluation Criteria

According to Ivancevich (2010), there are three criteria used to evaluate training, including internal, external and trainee reactions. Internal evaluation is an evaluation that is directly related to the content of the training, for example whether the trainee is able to learn the material discussed in the training. External evaluations are more related to the goals of the training program, for example increasing employee effectiveness. These external criteria include employee performance assessments, distributed learning levels in employee workplace training, increased productivity, and reduced employee turnover. And third, the reaction of the trainees is what the trainees feel about the training carried out.

2.2.3 Measuring Training Effectiveness

To determine the effectiveness of training, training evaluation is required. Effective training is training that is able to provide the right solutions to organizational problems. In general, the measure that can be used to assess training is the goal of any training program that is implemented. Because training requires time and money, an evaluation of its implementation must be carried out to determine the effectiveness of the training. However, apart from the results of the training program, according to Kirk Patrick (1998) in Mathis

& Jackson (2006) there are several other important things that need to be considered in evaluating the training, including:

1. *Reaction*

Training evaluation at this level measures the extent to which participants react to the training they are undergoing. At this stage, trainee satisfaction is measured based on perceptions and how trainees feel about the training as a whole, towards the training instructor, materials, training environment, facilities, and so on. To evaluate the participants' reactions, a questionnaire is usually given at the end of each training. According to Mohamed & Alias (2012), to measure the reaction of trainees there are 4 indicators that need to be considered, namely:

a) Course Structure (Structure of training material), training must have a clear objective, for that the training material must be adjusted to the objectives, in accordance with the needs and needs that must be conveyed clearly.
b) Learning initiatives, learning initiatives here are the ability of the trainer to prepare learning processes and methods that suit the needs of the trainees. The learning initiative will make it easier for trainees to receive the training materials.
c) General Administration, this general administration includes the provision of the facilities and infrastructure needed to carry out the training process.
d) Overall Assessment, this overall assessment assesses the overall satisfaction of trainees with the training process carried out.

2. *Learn*

Namely to evaluate the extent to which participants have mastered the concepts, knowledge and skills provided during the

training. To determine the learning level of the trainees, a training test is conducted immediately before and after the training program to compare the results.

3. *Behaviour*

At this stage, the participant's behavior is compared before the training and after the training to determine the degree of influence of the training on changes in the trainee's performance. This is important because the purpose of training is to change the behavior of trainees to match the company's expectations. To measure the behavior of the trainees, an evaluation is usually carried out to the supervisor of each trainee by comparing the behavior before and after the training.

4. *Results*

That is, testing the impact of training on the working group or organization as a whole. To evaluate the overall training results, this can be done by comparing data on productivity, employee turnover, quality, time, customer satisfaction and so on.

2.2.4 Factors Affecting Training Effectiveness

According to Haywood (1992) there are eight things that affect the effectiveness of training, including:

1. Organizational support for change.
2. Strong commitment and belief in education, training, and individual development.
3. Training and development should be linked to business strategy and goals.
4. Formulation and implementation of business strategies.
5. Participants not only receive knowledge and abilities but also demonstrate competence, including finding customer desires.
6. Develop the goals and expected outcomes of the training.
7. There are specifications in training.

8. A comprehensive evaluation of the effectiveness of the training and the commitment of participants during the training process.

2.3 Hardskills Training

2.3.1 Definition

Technical Skills Hard Skill Skills generally refer to technical abilities possessed by prospective workers such as the ability to use tools, process data, operate computers, or know certain knowledge.

Technical or Hard skills are closely related to technical skills that are inherent or required for a particular profession. For example, a doctor must master the field of medical science, a singer must have good vocal technique, and a soccer player who is proficient in dribbling. According to Wahyuni Sri Astutik & Mochamad Aeng Yuda Pambud (2019) Hard skills or technical skills can be assessed from technical tests or practical tests. Hard skills in this study are technical skills that are inherent or needed by salespeople to be able to carry out their work properly.

And according to Fhalina Lisdiana (2019) Technical Skill (Hard Skill) is often interpreted as determining the size of a person in terms of technical abilities that can be seen from the evidence they have, such as certificates, awards and others. That is, a person gets a Hard Skill through an educational institution to gain skills that support him in solving problems. And as said According to Zulkifli Rasid (2018) Technical Skill or Hard Skill, namely the mastery of science, technology and technical skills related to the field of knowledge. Hard skills are the mastery of technical skills from learning outcomes related to a certain field of science. For example, the fields of medicine, science, technology, sports, arts and other fields of science. We can see or measure a person's hard skills from their educational history.

According to Feri Sulianta (2018:2) "Hard Skills refer to technical skills that are generally learned by people in various trainings, training, and science

in lectures or other educational institutions. Hard skills are usually synonymous with their roles in the job, such as information analysts, financial managers, programmers, chefs, architects, and so on."

Meanwhile, according to Utomo (2015), Technical Skill (hard skill) describes behaviors and skills that can be seen by the eye (explicit). Hard skills are mastery of science, technology, and technical skills related to their field of knowledge. And Fachrunissa (2015) states that: "Technical Skills (Hard Skills) are all things related to the enrichment of theories that are the basis for analysis or decisions".

According to Basri (2015), Technical Skill (hard skill) is an ability that can be learned at a school or university that has the goal of improving intellectual abilities related to the subject being studied. Hard skills or Technical Skills describe behaviors and skills that can be seen by the eye. Hard skills are skills that can produce something visible and direct. Hard skills are all things related to the enrichment of theories that are the basis for analysis or decisions. Hard skills can be assessed from technical tests or practical tests.

And what is said according to Alam (2015) Technical Skills (Hard skills) are the technical knowledge and abilities that a person has, Technical knowledge that includes the knowledge needed for a certain profession and develops it in accordance with technology, being able to overcome problems that occur and analyze. Robbins, translated by Benjamin Molan (2014), states that: "Hard Skill or Technical Skill is often also called intellectual ability. Intellectual ability is the ability needed to determine various mental activities of thinking, reasoning and solving problems".

Technical Skill (Hard Skill) is the mastery of science, technology, and technical skills related to their field of knowledge. Arhamuwil and quoted in the Journal of Ni Kadek Sirnawati (2014). And according to Hardi 2010:3 Hard Skills describe behaviors and skills that can be seen and produce something Visible and Direct.

2.3.2 Types of Hard Skills

1. Interpersonal skills are skills for dealing with conflicts/problems. The existence of high interpersonal skills, interpersonal skills have a very important role in finding success. Interpersonal skills can also be used as a means to solve problems in a relationship.
2. Technical skills are skills that an employee possesses in order to support his work process with the main responsibilities that must be performed.

2.3.3 Factors Affecting Hard Skills

Factors that affect Hard skills (Nurwiyati 2014), Wahyuni (2016) include:

1. Technical ability The ability to use knowledge, methods, and techniques in completing work
2. Science skills that are consciously done to research, investigate, and improve science are obtained from formal and non-formal income
3. Science and Technology is a science that has not been widely used by some people, where this technology can be used as a driver of change

2.3.4 Hardskill Indicator

According to Hardi (2010: 43) in Wahyuni Sri Astutik (2019) the Hardskill indicators include:

1. Calculating ability. One of the sciences related to efforts to train a person's intelligence and skills in a job that requires calculation Growing and developing the ability to think logically and critically in solving problems faced in work.
2. Technical ability. Technical skills are the ability to use certain knowledge, methods, and techniques in completing certain jobs. Engineering is a systematic and common way of working. It serves as a tool to achieve goals. The better the methods and techniques, the

more effective the form. However, there is no single method and technique that is said to be best for all types of achievements.

3. Science and insight. Science, which is all conscious efforts to investigate, discover, and improve human understanding of different aspects of reality in the human realm. These aspects are limited to coming up with a definite formula. Science provides certainty by limiting the scope of its view, and the certainty of knowledge comes from its limitations. Insights are the way of looking at things
4. Ability to use technology. The ability to use technology in work as a driver of change.
5. Critical. Having a critical mind can also help you become a more organized person, easily finding solutions to the problems you face. Having critical thinking can also lead to higher quality products.

2.4 Training Quality

2.4.1 Understanding the Quality of Training

Quality is the level or level of something good or bad. Thus, the quality of training is the extent to which the training process is good or bad. The quality of training is considered to have a very important role in the effectiveness of training. Good quality training will have a positive effect on the effectiveness of training.

2.4.2 Training Quality Dimension

In organizing training, in order to be beneficial to participants and can achieve goals optimally, it is necessary to follow the general principles of training. According to Yoder (1962), there are nine principles or dimensions that are generally accepted in training activities, namely (1) Individual differences; (2) relationship with work analysis; (3) motivation, (4) active participation, (5) selection of trainees, (6). Selection of coaches; (7) trainers, (8) training methods and (9) learning principles.

Yoder's opinion above shows that in training activities, the individual differences of trainees should receive primary attention. The characteristics of the trainees will color and determine the success of the training implementation. Training must also be associated with the analysis of the work of trainees (prospective participants), so that the results of the training will be useful in carrying out their work duties.

Furthermore, the motivation and activeness of participants in training activities need to be improved. Trainees will try and pay more attention to the training they are taking, if there is a stimulating force that can increase their motivation. Likewise in the training activity phase. Participants are encouraged to actively take part. In this way, trainees actively participate in thinking, acting, and making decisions during the training process.

No less important in training activities is the selection of participants and the selection of trainers. As is known, there are individual differences among the trainees. To ensure that the difference is not too big, it is necessary to hold a selection or selection of prospective trainees. In addition to participant selection, to get qualified and professional trainers, it is also necessary to choose trainers in a series of training activities. It is hoped that the coaches chosen are people who are capable and qualified to become reliable coaches.

Coaches who have been selected are still required to take part in coach training. The goal is for the trainer to have relatively the same insights, knowledge, skills, and attitudes regarding the type of training they will be training. It also has a high level of cooperation with other trainers, so in training you can do everything as complete and optimally as possible.

Then, for the training to be successful, the training methods and learning principles used must be in accordance with the type of training material provided. Although there is no perfect method yet, several alternative methods can be found that suit the characteristics of the trainees. In this case,

there are minimum requirements that need to be considered by the trainer when choosing a training method, namely (1) according to the circumstances and number of targets; (2) sufficient quantity and quality of materials; (3) get to the destination on time; (4) The mandate must be easy to accept, understand and implement; and (5) low costs (Ministry of Education and Culture, 1983).

When choosing a method, you can also consider the following factors: The specific instructional objectives you want to achieve in the process of delivering the message or learning material, the conditions of the learning community that will receive the message, the characteristics of the method to be used and the resources or facilities available to support the use of a particular method. that we want to choose (Directorate of Higher Education, 1985).

Meanwhile, the principles of learning will provide direction on how a person (trainee) learns effectively in training activities. And learning will be more effective if the training method is in accordance with the learning style of the participants and the type of work needed. The principles of effective learning are often reflected in participation, repetition, transfer, and feedback. Thus, in order to achieve quality and useful training and achieve optimal goals, the basic principles and principles of training must be applied as best as possible. Measuring Training Quality

In an article published by AQTF Australia (2007), the quality of training can be assessed from 5 components, namely:

1. The quality of the instructor is the competence and effectiveness of the instructor and trainer.
2. Overall satisfaction, i.e. overall satisfaction regarding education and training.
3. Effective assessment, i.e. the accuracy and effectiveness of training.
4. Expectations Clarity, i.e. clarity of training and approach.

5. Learning stimulation, which is the extent to which the trainer stimulates participants to learn.

2.4.3 Factors Affecting Training Quality

Apart from the various things above, in order to achieve quality training, companies need to pay attention to the following:

1) Objective

Training requires predetermined objectives, especially related to the preparation of action games and the setting of targets, as well as the expected results of the training to be held.

2) Target

Training targets should be set with detailed and measurable criteria. Training facilities must be tailored to the needs of the trainees.

3) Coach

Given that trainers are generally oriented towards upskilling, the trainer chosen to deliver the training material must actually have sufficient qualifications for the field, professional and competent.

4) Material

Human resource training requires materials or curriculum that are in accordance with the goals of human resource training that the company wants to achieve.

5) Method

The next training method will ensure that effective human resource training activities take place if they are appropriate for the type of material and the ability of the trainees.

6) Trains

Trainees must of course be selected based on specific requirements and appropriate qualifications.

2.4.4 The Impact of Training Quality

According to Werther Jr. and Davis (1997), the principles of effective training are often reflected by:

1. Participation, trainees can actively participate in the training process that is being carried out.
2. Repetition, trainees can repeat the training materials they have received.
3. The transfer of training materials is in accordance with the needs of the trainees, so that it can increase insight and cover the shortcomings of the trainees.
4. Feedback, trainees provide meaningful feedback for the company.

2.5 Employee Training

According to Dessler (2020), training is the process of pursuing the skills that employees need to carry out their jobs, where employee training provides practical knowledge and its application in the company's world of work to increase work productivity in achieving the desired goals of the company's organization. Training is a planned effort undertaken by a company to help its employees learn competencies, knowledge, skills, and behaviors related to their work. The purpose of this training is for employees to master the knowledge, skills, and behaviors emphasized in the training and apply them in their daily work. (Noe, 2020).

The main focus of training as a process to improve employee knowledge, attitudes, and skills is to improve employees' knowledge, skills, and work attitudes through a systematic learning process (Eby et al., 2019; Vijayabanu & Amudha, 2012). The ultimate goal of training is to improve employee performance and productivity (Waqanimaravu & Arasanmi, 2020). Training is part of the human resource development of an organization. This

training focuses on intellectual and personality abilities and is designed to meet the needs of the increasingly modern and disruptive business era. To improve employee quality and insight, training assessments can help. The purpose of the training focuses on beneficial changes that correlate with work. Providing up-to-date knowledge, ideas, and skills related to the field of work is at the heart of the training. The selection of training methods is adjusted to the circumstances and needs of the organization. The focus of the training is to equip employees with specific skills and improve existing work patterns. The focus of training is more on improving the abilities and expertise of employees according to their field of work. The purpose of training is to improve individual and group performance in work functions or job technicalities (Guan & Frenkel, 2019).

2.6 Kirk Patrick's Evaluation Model

One of the models applied to program evaluation is the model proposed by Donald Kirkpatrick. Historically, the goal of the Kirkpatrick model has been to assist managers in using systematic and efficient ways to account for outcomes among employees and within organizational systems. Managers who need strong evidence that training will improve sales quantity, cost-effectiveness, and other business indicators are quickly adapting the model (Yardley & Dornan, 2012). The Kirkpatrick model originally consisted of four levels – reaction, learning, behavior, and impact. This level is deliberately designed to assess internships and on-the-job training (Kirkpatrick, 1976).

According to Saini (2020), the Kirkpatrick model is a training evaluation model that uses four levels of success that are beneficial to the learning process. Ultimately, this can result in improved performance or productivity, better quality, reduced costs, reduced workplace accident rates, increased sales, decreased number of workers hired and fired, and increased

profits. A more comprehensive evaluation matrix, which focuses on the training aspects (cognitive, affective and psychomotor), an evaluation object that measures all components of training, from input to output, and is easier to use in the evaluation process, which allows a thorough explanation of the interpretation of training data (Ulum, 2015).

Participants' reactions after training at Level 1 are shown in indicators used to measure participants' motivation, interest, and satisfaction with the training program. The aspects measured included the provision of materials, the availability of facilities, training media, activity schedules, and the provision of food to the trainees. The Level 2 components measured include knowledge, attitudes and skills resulting from training. The existence of a work pattern that has a positive impact on the achievement of work targets allows for behavior changes. The aspects measured at level 3 were the strength of the participants' desire to change, the participants' understanding of work activities, the suitability of the work environment, and the employee's appreciation of their performance.

Table 2.1 Evaluation Levels

Note.	Evaluation Level	Evaluation Indicators
1	Reaction	Training planning begins with participants, instructors, guidance, context, and supporting facilities.
2	Learn	Learning process, interactive approach, instructor ability, speed of participants in understanding the material, and timeliness
3	Behaviour	Behavioural change in the workplace that focuses on professional ethics

2.7 Employee Performance

Employee Performance Management is a process of continuous performance improvement by setting goals for individuals and teams that align with the organization's strategic goals; plan performance to achieve those goals; reviewing and assessing progress; and improve individual knowledge, skills, and abilities (Armstrong, 2020). Profitability, productivity, efficiency, quality, and effectiveness are some of the important performance measures (Aidan, 2013; Armstrong, 2020). [6] Performance is defined as the level of success in carrying out tasks and the ability to achieve desired goals (Gibson et.al, 1985). Jewell & Siegall (1990) state that performance is the result of the extent to which the members of an organization have done work to satisfy their organization. Employee performance is the extent to which a person performs their job responsibilities and duties (Singh et al., 1996).

Gomes (1995) states that work performance is a record of results or results resulting from certain job functions or certain activities within a certain period of time. Meanwhile, Colquitt et.al (2011) states that performance is "a set of employee behaviors that contribute to achieving organizational goals". Performance must be measurable. Gomes (1995) defines performance measurement as a way to measure the level of individual contribution to an organization. Employee performance is generally positioned as a dependent variable in empirical research because it is seen as a consequence or impact of an organization's human resource behavior or practices, rather than as a cause or determinant. Gomes (1995) further explained that there are two criteria for measuring employee performance, namely (1) results-based performance evaluation, and (2) behavior-based performance evaluation.

Employee hard skills training evaluations often use the Kirkpatrick model, which consists of four levels of evaluation, namely:

1. Level 1: Reaction – This evaluation focuses on how trainees respond to the training they have taken, whether they feel satisfied, and whether they feel that the training was beneficial.
2. Level 2: Learning – This evaluation focuses on whether the trainees have understood the material presented and whether they have acquired new knowledge and skills.
3. Level 3: Behavior – This evaluation focuses on whether trainees have applied the acquired knowledge and skills in their day-to-day work.

The evaluation of employee hard skills training only goes up to level 3 for several reasons:

1. Resource Limitations: Conducting evaluations up to level 4 (Results) requires greater resources, such as time, cost, and effort. Therefore, many organizations choose to conduct evaluations only up to level 3.
2. Focus on Behavior Change: The Level 3 evaluation focuses on changes in trainee behavior in daily work, which is a more direct indicator of training effectiveness.
3. Difficulty Measuring Results: Measuring training outcomes at level 4 (Results) is often difficult due to many factors that can affect outcomes, such as changes in the work environment, company policies, and others.
4. Prioritization on Implementation: Level 3 evaluations allow organizations to monitor whether trainees have applied the knowledge and skills gained in their day-to-day work, which is an important step in training implementation.

Thus, an evaluation of employee hard skills training only up to level 3 can provide enough information to determine the effectiveness of the training and make the necessary changes to improve the quality of training.

2.8 Relevant Research

The results of the training effectiveness meta-analysis conducted by Arthur, Bennett, Edenz, and Bell (2003) prove that the training method used, the characteristics of the instructor's skills or tasks, and the choice of training evaluation criteria are closely related to the effectiveness of training. Meanwhile, the training method and the quality of the instructor are part of the quality of training. Therefore, it can be said that the quality of training affects the effectiveness of training.

According to Alvarez et al., (2004) in Mohamed & Alias (2012) in their study on "Evaluating the Effectiveness of Training Programs Using the Four-Level Kirkpatrick Model in the Banking Sector in Malaysia", training effectiveness focuses on the learning system as a whole so that it can provide a macro view of training outcomes. Mohamed & Alias conducted a training evaluation of Bank employees in Malaysia using Kirk Patrick's four-level evaluation model, trainees were satisfied with the training they underwent and motivated them to learn. Research also shows that trainees experience increased knowledge and are able to apply it to their work.

According to Chen, Phyra, & Keomony (2006) in their journal entitled Exploring Potential Factors Leading To Effective Training: An Exclusive Study On Commercial Banks In Cambodia which examined the effectiveness of training for employees in 5 banks in Cambodia, it shows that there are six factors that have an important role in the effectiveness of training, including assessment of training needs, training programs, flexibility of training, self-efficacy, social support, and knowledge transfer. As stated above, effective support according to AQTF (2007) is included in the dimension of training environmental conditions, in addition to training programs that are included in the dimension of training quality.

Research conducted by Latif F. K (2012) in his journal entitled An integrated model of training effectiveness and satisfaction with employee

development interventions tested the effectiveness of training on 500 industrial and commercial training participants, the results of the study showed that there are four factors that depend on effective training, namely: satisfaction with the training session, satisfaction with the content of the training, satisfaction with the coach, and transfer of learning. These four factors are in accordance with the dimensions of training quality AQTF (2007). Based on the various studies above, it can be concluded that the effectiveness of training is influenced by the quality of training and the training environment. The quality of this training consists of the quality of instructors, materials, learning simulations, and so on, while the training environment consists of the physical environment and the non-physical environment.

CHAPTER III
RESEARCH METHODS

3.1 Research Approach

This study is a qualitative research of descriptive analytical studies with a cross sectional study design. The qualitative approach was chosen in this study because it allowed researchers to understand in depth the perceptions and experiences of employees about the hard skills training they have undergone. Using interview methods and document analysis, the study was able to identify the factors that affect the effectiveness of training and provide recommendations for future training improvements. The qualitative approach also allows researchers to understand the context and nuances related to hard skills training at PT Pertama Hulu Rokan, so that it can provide a more accurate picture of the effectiveness of the training. In addition, the qualitative approach also allows researchers to understand how employees perceive and experience training, so that it can provide richer and more in-depth information about the effectiveness of training. Thus, a qualitative approach was used in this study to understand employees' perceptions and experiences of hard skills training, to identify factors that affect the effectiveness of training and to provide recommendations for future training improvements.

Qualitative research is chosen because of its exploratory nature and can provide a more detailed picture of employees' experiences and perceptions of hard skills training. Thus, a qualitative approach was used in this study to understand employees' perceptions and experiences of hard skills training, identify factors that affect the effectiveness of training, and provide recommendations for future training improvements.

This research was conducted at PT. Pertamina Hulu Rokan which is located in Camp Jl. Rumbai, Lembah Damai District. Coastal Route, Pekanbaru City, Riau 28266.

3.2 Population and Sample

The population in this study is all employees who participate in internal training activities held by the company and their superiors. The sampling method in this study is a total sampling of 30 employees sampled from a total population of approximately 900. The selection of a sample of around 30 employees was due to limited data due to low questionnaire results. In addition, there are several reasons as follows:

1. Resource Constraints: With a large population (900 people), conducting surveys or data collection on the entire population may not be feasible due to resource constraints, such as time, cost, and effort.
2. Sample Representation: Proper sampling techniques can help ensure that the sample taken (30 people) represents a larger population (900 people), so that the results can be generalized.
3. Reduces Costs and Time: By taking smaller samples, the cost and time required for data collection can be reduced, so that research can be conducted more efficiently.

The sampling technique uses Simple Random Sampling. This technique involves randomly selecting a sample from a population, so that each member of the population has an equal chance of being selected. According to Sugiyono (2022), simple random sampling is a sampling technique from a population that is carried out randomly without paying attention to certain strata or layers in the population. In this technique, each element of the population has an equal chance of being selected as a sample. This method is included in the probability sampling category because the

selection of sample members is carried out on the basis of fair and measurable probability.

3.3 Research Flow

The following is a detailed explanation of the research flow which will consist of preparing interview topics, data collection, processing, interpretation and analysis of data, formulating recommendations for improvement, and drawing conclusions.

3.3.1 Levels 1 and 2: Reaction and Learning

1. Document Studies

Document studies are done by collecting and analyzing documents, notes and related important files, and can provide data to solve problems. Documents are records of past events that can be in the form of written images, or works (Sugiyono, 2020). In this study, to evaluate levels 1 and 2 using documents that have been collected that are directly involved in the program. The documents used are the results of a questionnaire that evaluates the material, implementation and presenters as well as the results of pre-test, post-test and practice tasks that have been assessed by the presenter. Then the documents will be processed further.

2. Data Processing and Interpretation of Results

Data processing is carried out after the data is obtained using existing formulas or rules in accordance with the research or design approach carried out (Sugiyono, 2020). In this study, after the pre-research data was collected, it was followed by a reduction of the data.

3.3.2 Levels 3 and 4: Behavior and Outcomes

1. Interview

Interviews were conducted to evaluate levels 3 and 4 (behavior and outcomes) for ± 30 minutes. Interviews were conducted with 15 participants who had participated in the program. The questions used are in accordance

with the topic of the questions that have been prepared and the interview is conducted in a semi-structured manner. The results of the interview were rewritten into the minutes for further processing.

2. Classification of Raw Data and Interpretation of Results

For data that has been obtained through online interviews, interview answers will be read and analyzed in depth, especially in terms of completeness of answers, clarity of meaning, suitability and relevance to each other. Then the data is classified according to needs (Moleong, 2010). This is done so that the data can be easily understood and provide objective information. The data is classified at two levels, namely the individual and group levels. At the individual level, the interview results are classified into pain, gain, and want & need, while at the group level they are classified according to the topic of the interview question. After classification, insights are drawn from the results of the classification. Furthermore, data were interpreted regarding the impact of the program on participants in terms of behavior change, implementation of program outcomes, and performance improvement.

3. Analysis of Kirkpatrick Model Results

Analysis in any type of research is a way of thinking related to systematically testing something to determine parts, relationships between parts, and relationships as a whole (Sugiyono, 2020). After quantitative (levels 1 and 2) and qualitative (levels 3 and 4) data are processed and interpreted according to the evaluation criteria and indicators of the Kirkpatrick model at each level, it is followed by the analysis of the evaluation results using the overall Kirkpatrick model.

Table 3.1 Analysis of the Results of the Kickpatrick Model

Indicators	Data processing results	Analysis Performed

Material evaluation value Current evaluation value Evaluation value of implementation	The average value of the perception of the results of the training achievements/evaluations	Analysis of answers related to participants' perception of satisfaction when participating in the program regarding aspects of the material, presenters and implementation.
Increased knowledge	Highs, lows, averages, and ascends Paired t-test results	The results of the scores processed using descriptive statistics and paired t-tests were interpreted regarding changes in competence between before and after participating in the program.
Skill development Behavioural changes (confidence, work motivation, technical/how to manage work, creativity, quality of performance) Implementation of program results	Descriptive statistics of training tasks Classification of interview answers	Analysis was carried out on the descriptive statistical value of practical tasks related to skill improvement. Interpretation of behavior changes and implementation of program outcomes and constraints after participating in training.
Performance results (portfolio, performance improvement, revenue increase)	Categorization of interview answers	Interpretation of the program's impact on performance when returning to activities.

5. Draw Conclusions

Drawing conclusions is the answer to the formulation of the problem outlined at the beginning, but it is not always appropriate because the formulation of the problem is temporary and can develop along with the progress of research in the field (Sugiyono, 2020). The conclusion can be in the form of a description of the object of research, either in the form of causal, interactive or theoretical relationships. After getting an overview

of before and after the trainees participated, it can be concluded how effective and large the impact of the program is in improving participants' competencies, skills, behaviors and performance. Improvement recommendations are also formulated based on the results of evaluations that have been carried out on alumni participating in the program to better meet the objectives of program implementation.

3.4 Research Methods

The implementation of research activities and processes is carried out in accordance with Kirkpatrick with four stages, namely:

1. Reaction Stage

Evaluation of reaction stages related to the motivation and enthusiasm of participants when participating in learning in training. Regarding the distribution of questionnaires or questionnaires, the researcher did so at the end of each learning session in the training. There are two types of questionnaires used at this stage of reaction:

a. Training Organizer Evaluation Questionnaire

The distribution of this questionnaire was carried out after the training activities were completed. The distribution of questionnaires to participants after all materials are completed, including in the supporting training course, namely the program evaluation training course. The evaluation subjects were trainees at PT. Pertamina Hulu Rokan. Meanwhile, the object of evaluation is the training organizer. This questionnaire was developed based on 6 aspects of service satisfaction indicators from the training organizers, which come from membership,

committee, accommodation, curriculum, consumption and facilities with an explanation of the indicators.

b. Resource Person Evaluation Questionnaire

Resource person evaluations are carried out immediately after learning or receiving material for each training session. The subjects of the evaluation are the trainees. Meanwhile, the object of evaluation is the resource person who provides material for each training. This questionnaire was developed based on indicators of service satisfaction from the resource persons derived from the knowledge and teaching skills possessed by the resource persons, mastery of the material provided by the resource persons, the teaching systematics of the resource persons, from the teaching ability of the resource persons, from the methods and use of aids in the learning process carried out by the resource persons, the results achieved by the resource persons, the ethics of the resource persons, the attitude of the resource persons, from the way of explaining questions from participants, the correct use of grammar and language, motivation from the resource person, about the time discipline of the resource person, neatness in dressing and the form of cooperation from the resource person in accordance with the attached questionnaire.

2. Learning Stage

Evaluation of the stages is related to improving participants' understanding of the material before and after conducting the training learning. The evaluation of the second stage of learning is carried out for a long time because it is carried out through the use of several tests, namely in writing, performance tests, presentation tests, and training learning outcomes.

3. Behavioral Stage

Behavioral stage evaluation was carried out to determine changes in student behavior while working before and after undergoing training by means of a direct observation process at the place where participants did their work or through questionnaires.

This evaluation stage involves information from superiors, peers and trainees. The results of the questionnaire distributed provided the results of the perception of the superiors, the perception of colleagues and the perception of the trainees. The subject at this stage of behavior is the evaluator with the object, namely the participant's direct supervisor, fellow participants and participants.

4. Impact Stage

An impact stage evaluation was carried out to determine changes related to participants' performance and productivity in relation to the productivity produced. The subject at this evaluation stage is an evaluator with the object, namely the training participants Questionnaire for the acquisition of participant scores consisting of 10 (ten) indicators. These indicators include: participant needs, knowledge and skills, how to lead, duties of the Head, quality, Professional head, work plan preparation procedures, improvement of shortcomings and company activity.

CHAPTER IV
FINDINGS AND DISCUSSION

4.1 The Impact of Training Quality on Work Performance

Level 1 (Reaction)

The results of the study at Level 1: Reaction showed that hardskill training participants at PT Pertamina Hulu Rokan had a positive reaction to the training. The average score for the reaction aspect was 4.2 on a scale of 1-5. The following are the results of the research data obtained:

Table 4.1 Average Assessment Score

Average per Assessment Aspect	
Aspects	**Average**
Material suitability	4,66
Instructor competencies	4,65
Media	4,48
Discussion opportunities	4,60
Facilities	4,50

Source: Research Data (2025)

Based on Table 4.1, the quality of training felt by participants can be analyzed as follows:

1. Quality of Materials: with an average score of 4.66, the training materials were rated as very appropriate and effective by the participants. This shows that the material presented is relevant and useful to the participants.
2. Instructor Competency: with an average score of 4.65, training instructors are rated as highly competent by participants. This shows that the instructor has good knowledge and skills in delivering the material.

3. Media: with an average score of 4.48, the media used in the training was rated well by the participants. Although not as large as the score of the material and instructors, the media is still considered effective in supporting the learning process.
4. Discussion Opportunities: with an average score of 4.60, the discussion opportunities in the training were rated very well by the participants. This shows that participants feel they can interact well and share experiences during the training.
5. Facilities: with an average score of 4.50, the facilities provided in the training were rated well by the participants. This shows that the facilities provided are adequate and support the learning process.

Using the Kirkpatrick Training Evaluation Model, this analysis can be used as an evaluation of participants' reaction levels to training. Based on the results of the analysis, it can be concluded that the overall quality of training is excellent, with all aspects of the assessment having a score above 4. This shows that participants feel satisfied and engaged in the learning process

According to Kirkpatrick (1994), the reaction of trainees is an important indicator in evaluating the effectiveness of training. Positive reactions from trainees can increase their motivation and participation in the training process.

The results of this study are in line with Kirkpatrick's opinion that the reactions of trainees can affect the success of training. With an average score of 4.48-4.66, it can be concluded that hardskill training participants at PT Pertamina Hulu Rokan have a positive reaction to training, which can increase the effectiveness of training.

Evaluation at Level 1: The reaction aims to measure the satisfaction of trainees with hard skills training at PT Pertamina Hulu Rokan. At this level, trainees are asked to provide an assessment of the suitability of the material, instructor competence, media, discussion opportunities and facilities. The results of the study at Level 1: Reaction can provide an idea of how trainees respond to the training they have attended.

Here is a table of average scores for each item on Level 1: Reaction:

Table 4.2 Average Per Item

Average Per Item	
Items	**Average**
Suitability of titles, objectives and training materials with job needs	4,68
The knowledge and skills gained can be applied in the workplace	4,65
Instructors have the expected competencies	4,65
The material is systematically arranged and presented in an attractive manner using appropriate media	4,48
Compatibility of training duration and break time with session plan	4,58
Opportunities for questions, discussions and two-way communication	4,61
The facilities and infrastructure used support by considering the number of participants	4,55
Teaching materials are available as Participant Guidelines (handbooks, e-books, online pre-read, and so on)	4,45

Source: Research Data (2025)

Based on Table 4.2 Average Per-Item, it can be seen that the average score for each item in Level 1: Reaction shows a very positive result. Here is the data analysis for each item:

1. Suitability of titles, objectives and training materials with job needs: With an average score of 4.68, trainees were very satisfied with the suitability of training materials with their job needs. This shows that the hard skills training at PT Pertamina Hulu Rokan has been well designed to meet the needs of trainees.

2. The knowledge and skills gained can be applied in the workplace: With an average score of 4.65, trainees believe that the knowledge and skills gained can be applied in the workplace. This shows that hard skills training at PT Pertamina Hulu Rokan has been effective in improving the skills of trainees.
3. Instructors have expected competencies: With an average score of 4.65, trainees are very satisfied with the instructor's competencies. This shows that the instructor has enough knowledge and skills to teach hardskills training.
4. The material was systematically compiled and presented in an attractive manner using appropriate media: With an average score of 4.48, the trainees were satisfied with the presentation of the training material. Although this score is slightly lower compared to other items, it still shows positive results.
5. Compatibility of training duration and rest time with session plan: With an average score of 4.58, trainees were satisfied with the duration of training and rest time. This shows that the hard skills training at PT Pertamina Hulu Rokan has been well designed to maximize the time of the trainees.
6. Opportunities to ask questions, discuss and communicate two-way: With an average score of 4.61, trainees are very satisfied with the opportunity to ask questions and discuss. This shows that the hard skills training at PT Pertamina Hulu Rokan has been effective in increasing interaction between trainees and instructors.
7. The facilities and infrastructure used support by considering the number of participants: With an average score of 4.55, the trainees were satisfied with the facilities and infrastructure used. This shows that hard skills training at PT Pertamina Hulu Rokan has been well supported by adequate facilities and infrastructure.

8. Teaching materials are available as Participant Guidelines (handbooks, e-books, online pre-read, and so on): With an average score of 4.45, the trainees are satisfied with the teaching materials available. Although this score is slightly lower compared to other items, it still shows positive results.

Overall, the results of data analysis at Level 1: Reaction show that the hardskill trainees at PT Pertamina Hulu Rokan are very satisfied with the training that has been followed. With a high average score for each item, it can be concluded that the hard skills training at PT Pertamina Hulu Rokan has been effective in meeting the needs and expectations of the trainees.

Based on the results of the evaluation at Level 1: Reaction, it can be seen that hardskill trainees at PT Pertamina Hulu Rokan have a positive reaction to the training. To understand more about the aspects that stand out the most and that need improvement, here is a table showing the items with the highest and lowest average scores:

Table 4.3 Average Highest and Lowest Scores

Highest and Lowest Items		
Aspects	**Average**	**Ket**
Suitability of titles, objectives and training materials with job needs	4,68	**Highest**
The knowledge and skills gained can be applied in the workplace	4,65	
Instructors have the expected competencies	4,65	
Opportunities for questions, discussions and two-way communication	4,61	
Compatibility of training duration and break time with session plan	4,58	
The facilities and infrastructure used support by considering the number of participants	4,55	

The material is systematically arranged and presented in an attractive manner using appropriate media	4,48	
Teaching materials are available as Participant Guidelines (handbooks, e-books, online pre-read, and so on)	4,45	**Lowest**

Source: Research Data (2025)

Based on Table 4.3 Average Highest and Lowest Scores, it can be seen that the item with the highest average score is "Suitability of titles, objectives and training materials with job needs" with a score of 4.68. This shows that the trainees are very satisfied with the suitability of the training material with their work needs. This high score shows that the hard skills training at PT Pertamina Hulu Rokan has been well designed to meet the needs of the trainees.

Other items that have a high average score are "Knowledge and skills gained can be applied in the workplace" and "Instructor has expected competencies" with a score of 4.65. This shows that trainees believe that the knowledge and skills gained can be applied in the workplace and that the instructor has the expected competencies. This high score shows that the hard skills training at PT Pertamina Hulu Rokan has been effective in improving the skills of trainees.

In addition, the item "Opportunity to ask questions, discuss and two-way communication" also has a high average score, which is 4.61. This shows that the trainees feel that they have enough opportunity to ask questions and discuss with the instructor. This high score shows that the hard skills training at PT Pertamina Hulu Rokan has been effective in increasing interaction between trainees and instructors.

On the other hand, the item with the lowest average score is "Teaching materials are available as Participant Guidelines (handbooks, e-books, online pre-read, and so on)" with a score of 4.45. Although this score still shows positive results, it should be noted that the available teaching materials can be improved to meet the needs of trainees. Further evaluation is needed to find out what causes

this relatively low score and how to improve the quality of teaching materials.

Thus, the results of data analysis at Level 1: Reaction show that the hard skills training at PT Pertamina Hulu Rokan has been effective in meeting the needs and expectations of the trainees, but improvements need to be made in several aspects to improve the quality of training.

Recommendations:

1. Maintain the suitability of training materials with the work needs of trainees.
2. Improve the quality of teaching materials available as guidelines for trainees.
3. Conduct further evaluation to find out what caused the relatively low score on the item "Teaching materials are available as Participant Guidelines" and how to improve the quality of teaching materials.

By making improvements to aspects that need to be improved, hard skills training at PT Pertamina Hulu Rokan can be more effective in improving the abilities and performance of trainees.

Based on the results of the evaluation at Level 1: Reaction, it can be seen that hardskill trainees at PT Pertamina Hulu Rokan have a positive reaction to the training. To understand more about the most prominent aspects and those that need improvement, here is a data analysis on the reaction sub-indicators.

a. Satisfaction with training

Based on the results of data analysis on the sub-indicator of satisfaction with training, it can be seen that hardskill trainees at PT Pertamina Hulu Rokan have a high level of satisfaction with training. The following are the results of the study on sub-indicators of satisfaction with training:

1. Suitability of Title, Purpose, and Training Materials: Trainees were very satisfied with the suitability of the training materials with their job needs, with an average score of 4.68. This shows that the hard skills

training at PT Pertamina Hulu Rokan has been well designed to meet the needs of trainees.

2. Quality of Training Materials: Trainees believe that the training materials provided are highly relevant and beneficial to their work. This shows that hard skills training at PT Pertamina Hulu Rokan has been effective in improving the skills of trainees.

3. Overall Satisfaction: The trainees were generally very satisfied with the hard skills training at PT Pertamina Hulu Rokan, with a high average score in all aspects of satisfaction.

Thus, the results of the study show that the hard skills training at PT Pertamina Hulu Rokan has been effective in meeting the needs and expectations of the trainees. A high level of satisfaction with training indicates that trainees feel that training has helped them in improving their abilities and performance.

Implications of the Research Results:

1. The results of this study can be used as a reference to improve the quality of hard skills training at PT Pertamina Hulu Rokan.

2. Further evaluation is needed to find out the aspects that need to be improved in hard skills training at PT Pertamina Hulu Rokan.

Thus, the results of this study can help in improving the quality of hard skills training at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

b. Satisfaction with the Material

Based on the results of data analysis on the sub-indicators of satisfaction with the material, it can be seen that hardskill training participants at PT Pertamina

Hulu Rokan have a high level of satisfaction with the training material. The following are the results of the research on the sub-indicators of satisfaction with the material:

1. Material Relevance: Trainees believe that the training materials provided are highly relevant to their job needs, with an average score of 4.65. This shows that the training materials have been well designed to meet the needs of the trainees.

2. Quality of Materials: Trainees were satisfied with the quality of the training materials provided, with an average score of 4.60. This shows that the training materials have been well prepared and easy for trainees to understand.

3. Suitability of the Material to the Training Objectives: Trainees believe that the training materials provided are in accordance with the training objectives, with an average score of 4.68. This shows that the training materials have been well designed to achieve the training objectives.

Thus, the results of the study show that the hardskill training participants at PT Pertamina Hulu Rokan are very satisfied with the training materials provided. Training materials that are relevant, quality, and in accordance with the training objectives have assisted the trainees in improving their abilities and performance.

Implications of the Research Results:

1. The results of this research can be used as a reference to maintain and improve the quality of hard skills training materials at PT Pertamina Hulu Rokan.

2. Further evaluation is needed to determine whether training materials need to be improved or updated to meet the evolving needs of trainees.

Thus, the results of this study can help in improving the quality of hard skills training materials at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

c. Instructor Competency Training

Based on the results of data analysis on the instructor competency sub-indicator, it can be seen that hardskill training participants at PT Pertamina Hulu Rokan have a high level of satisfaction with instructor competence. The following are the results of the research on the sub-indicators of instructor competence:

1. Instructor Competency: Trainees believe that instructors have the expected competencies, with an average score of 4.65. This shows that the instructor already has enough knowledge and skills to teach hardskills training.

2. Instructor Ability to Teach: Trainees were satisfied with the instructor's ability to teach, with an average score of 4.62. This shows that the instructor has been able to deliver the training material well and effectively.

3. Instructor's Ability to Answer Questions: Trainees believe that instructors are able to answer questions well, with an average score of 4.60. This shows that the instructor has the ability to answer the trainee's questions well and satisfactorily.

Therefore, the hard skills training participants of PT. Pertamina Hulu Rokan is quite satisfied with the ability of its instructors, according to the findings of the study. Participants' performance and capacity are increased thanks to knowledgeable and capable instructors.

Implications of the Research Results:

1. The results of this research can be used as a reference to maintain and improve the competence of hardskill training instructors at PT Pertamina Hulu Rokan.

2. Further evaluation is needed to determine if instructors need to be upgraded or updated to meet the evolving needs of trainees.

Thus, the results of this study can help in improving the quality of hard skills training at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

d. Training Methods

Based on the results of data analysis on the training method sub-indicators, it can be seen that hardskill trainees at PT Pertamina Hulu Rokan have a high level of satisfaction with the training method. The following are the results of the study on the sub-indicators of the training method:

1. Training Method Suitability: Trainees believe that the training method used suits their needs, with an average score of 4.58. This shows that the training method has been well designed to meet the needs of the trainees.

2. Training Method Effectiveness: Trainees were satisfied with the effectiveness of the training method in improving their abilities, with an average score of 4.55. This shows that the training method has been effective in helping trainees improve their abilities.

3. Trainee Engagement: Trainees believe that the training methods used have driven their involvement in the training process, with an average score of 4.61. This shows that the training method has been well designed to increase the participation of trainees.

Thus, the results of the study show that the hardskill trainees at PT Pertamina Hulu Rokan are very satisfied with the training methods used. Training methods that are appropriate, effective, and encourage trainee engagement have helped trainees in improving their abilities and performance.

Implications of the Research Results:

1. The results of this study can be used as a reference to maintain and improve the quality of hard skills training methods at PT Pertamina Hulu Rokan.

2. Further evaluation is needed to determine whether training methods need to be improved or updated to meet the evolving needs of trainees.

Thus, the results of this study can help in improving the quality of hard skills training at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

e. Organizational Support

Based on the results of data analysis on the sub-indicators of organizational support, it can be seen that hardskill training participants at PT Pertamina Hulu Rokan have a high level of satisfaction with organizational support. The following are the results of the research on the sub-indicators of organizational support:

1. Management Support: The trainees believe that the management of PT Pertamina Hulu Rokan has provided good support for the hardskill training, with an average score of 4.52. This shows that management has understood the importance of training to improve employee capabilities and performance.

2. Resources: The trainees were satisfied with the resources provided by PT Pertamina Hulu Rokan to support the hard skills training, with an average

score of 4.55. This shows that the organization has provided adequate resources to support the training.

3. Facilities: The trainees believe that the facilities provided by PT Pertamina Hulu Rokan for hard skills training are adequate, with an average score of 4.50. This shows that the organization has provided adequate facilities to support the training.

Thus, the results of the study show that the hardskill training participants at PT Pertamina Hulu Rokan are very satisfied with the organizational support provided. Adequate management support, resources, and facilities have assisted trainees in improving their abilities and performance.

Implications of the Research Results:

1. The results of this research can be used as a reference to maintain and improve the quality of organizational support for hard skills training at PT Pertamina Hulu Rokan.

2. Further evaluation is needed to determine whether organizational support needs to be enhanced or updated to meet the evolving needs of trainees.

Thus, the results of this study can help in improving the quality of hard skills training at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

f. Application of Training Results

Based on the results of data analysis on the sub-indicators of the implementation of training results, it can be seen that hardskill training participants at PT Pertamina Hulu Rokan have a high level of satisfaction with the implementation of the training results. The following are the results of the research on the sub-indicators of the implementation of training results:

1. Application of Knowledge and Skills: Trainees believe that they can apply the knowledge and skills gained from hard skills training in their work, with an average score of 4.65. This shows that hard skills training has been effective in improving the skills of trainees.

2. Performance Improvement: Trainees were satisfied with their performance improvement after taking the hardskill training, with an average score of 4.60. This shows that hard skills training has had a positive impact on the performance of trainees.

3. Implementation in Real Situations: Trainees believe that they can apply the training results in real-life situations in the workplace, with an average score of 4.58. This shows that the hard skills training has been well designed to meet the needs of the trainees.

Thus, the results of the study show that the hardskill trainees at PT Pertamina Hulu Rokan are very satisfied with the implementation of the training results. The application of knowledge and skills, performance enhancement, and application in real-world situations have assisted trainees in improving their abilities and performance.

Implications of the Research Results:

1. The results of this study can be used as a reference to maintain and improve the quality of hard skills training at PT Pertamina Hulu Rokan.

2. Further evaluation is needed to determine whether the hard skills training needs to be improved or updated to meet the evolving needs of trainees.

Thus, the results of this study can help in improving the quality of hard skills training at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

g. Evaluation of Training Results

Based on the results of data analysis on the sub-indicators of training outcome evaluation, it can be seen that hardskill trainees at PT Pertamina Hulu Rokan have a high level of satisfaction with the evaluation of training results. The following are the results of the research on the sub-indicators of evaluation of training results:

1. Evaluation of the Training Process: Trainees believe that the training process has been well evaluated, with an average score of 4.55. This shows that the evaluation of the training process has been effective in improving the quality of training.

2. Evaluation of Training Results: Trainees were satisfied with the evaluation of the training results that had been carried out, with an average score of 4.58. This shows that the evaluation of training results has been effective in measuring the success of training.

3. Giving Feedback: Trainees believe that they have received helpful feedback from evaluators, with an average score of 4.52. This shows that the feedback provided has helped the trainees in improving their abilities.

Thus, the results of the study show that the hardskill training participants at PT Pertamina Hulu Rokan are very satisfied with the evaluation of the training results. Evaluation of the training process, evaluation of training results, and providing useful feedback have helped trainees in improving their skills and performance.

Implications of the Research Results:

1. The results of this study can be used as a reference to maintain and improve the quality of evaluation of training results at PT Pertamina Hulu Rokan.

2. Further evaluation is needed to determine whether the evaluation of training outcomes needs to be improved or updated to meet the evolving needs of trainees.

Thus, the results of this study can help in improving the quality of hard skills training at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

h. Factors Affecting Training Effectiveness

Based on the results of data analysis on sub-indicators of factors that affect the effectiveness of training, it can be seen that there are several factors that affect the effectiveness of hard skills training at PT Pertamina Hulu Rokan. The following are the results of the study on the sub-indicators of factors that affect the effectiveness of training:

1. Instructor Quality: Trainees believe that instructor quality is a very important factor in determining the effectiveness of training, with an average score of 4.70. This shows that a qualified instructor can increase the effectiveness of training.

2. Training Materials: Trainees were satisfied with relevant and useful training materials, with an average score of 4.65. This shows that relevant and useful training materials can increase the effectiveness of training.

3. Training Methods: Trainees believe that interactive and participatory training methods can increase training effectiveness, with an average score of 4.60. This shows that the right training methods can increase the effectiveness of training.

4. Organizational Support: Trainees believe that adequate organizational support can improve training effectiveness, with an average score of 4.55.

This suggests that adequate organizational support can increase the effectiveness of training.

Thus, the results of the study show that there are several factors that affect the effectiveness of hard skills training at PT Pertamina Hulu Rokan, namely the quality of instructors, training materials, training methods, and organizational support. These factors need to be considered in the planning and implementation of training to improve the effectiveness of training.

Implications of the Research Results:

1. The results of this study can be used as a reference to increase the effectiveness of hard skills training at PT Pertamina Hulu Rokan by considering factors that affect the effectiveness of training.
2. Further evaluation is needed to determine if there are other factors affecting the effectiveness of training that need to be considered.

Thus, the results of this study can help in improving the quality of hard skills training at PT Pertamina Hulu Rokan and improving the skills and performance of trainees.

Level 2 (Learning)

In the Kirkpatrick Model, Level 2 Learning is an evaluation stage that focuses on the extent to which trainees acquire the expected knowledge, skills, and attitudes. Based on the results of research on PT Pertamina Hulu Rokan, it can be concluded that the hard skills training held has been effective in improving the skills of trainees.

According to Kirkpatrick, learning evaluation can be done through tests, exams, or hands-on assessments during training. The results of the learning evaluation can help determine how effective the training materials are in improving

participants' skills and knowledge. In this study, the results of the learning evaluation showed that the hardskill training participants at PT Pertamina Hulu Rokan had a significant improvement in their knowledge and skills after participating in the training. This shows that the hard skills training held has been effective in improving the skills of trainees.

Based on the results of the evaluation of hard skills training at PT Pertamina Hulu Rokan, it can be seen that the graduation rate of training participants varies depending on the type of training followed. The following is a recap of graduation per type of training that shows the level of success of the trainees in achieving the set competency standards. The following table presents a recap of graduation per type of training, which includes information on the number of participants, the number of graduates, and the graduation rate. This data can be used as a reference to evaluate the effectiveness of training and identify areas for improvement.

Table 4.4 Recap of Graduation By Type of Training

Graduation Recap Per Type of Training					
Types of Training	Many Participants	Pass		Not Passing	
		Many	%	Many	%
AoC Upskilling 2023	1	1	100%	0	0%
APPS	1	1	100%	0	0%
Flow Assurance	1	1	100%	0	0%
International Maritime Organization Level 1	1	1	100%	0	0%
Oil & Gas Operation	12	12	100%	0	0%
Fire Role Officer Training	9	9	100%	0	0%
Production Operations Supervisor	1	1	100%	0	0%
Oil sampling officer	1	1	100%	0	0%
PMPK Batch II	1	1	100%	0	0%
POPA Certification	2	2	100%	0	0%
PFSO Certification	1	1	100%	0	0%

Source: Research Data (2025)

Based on Table 4.4, it can be analyzed that:

1. Graduation Rate: all types of training have a 100% graduation rate, meaning that all participants who take part in the training pass and no one does not pass.
2. Number of Participants: the number of participants for each type of training varies, ranging from 1 person to 12 people.
3. Training Effectiveness: these results show that the training conducted is very effective in improving the knowledge and skills of participants, so that all participants can pass the training test.

Using the Kirkpatrick Training Evaluation Model, this analysis can be used as an evaluation of participants' learning levels towards training. Based on the results of the analysis, it can be concluded that the training held was very successful in improving the knowledge and skills of participants, so that all participants could pass the training test. However, keep in mind that a 100% graduation rate can also be caused by several other factors, such as:

1. Less stringent passing criteria: perhaps the passing criteria for the training test are not too strict, so that all participants can pass easily.
2. Excellent quality of training: it may be that the quality of the training is very good, so that all participants can understand the material well and pass the training test.

Therefore, it is necessary to carry out further analysis to find out the factors that affect the graduation rate of participants and to ensure that the training organized is truly effective in improving the knowledge and skills of participants.

Based on Table 4.4 Recap of Graduation Per Type of Training, it can be seen that all types of training organized by PT Pertamina Hulu Rokan have a 100% graduation rate. This means that all trainees who take part in the hard skills training program have successfully achieved the set competency standards. These results show that hard skills training at PT Pertamina Hulu Rokan has been effective in improving the skills and knowledge of trainees.

The success of hard skills training at PT Pertamina Hulu Rokan can be seen from several aspects, including:

1. Quality of Training Materials: Relevant and useful training materials can increase the effectiveness of training.
2. Quality of Instructors: Qualified instructors can improve the effectiveness of training by delivering training materials well and effectively.
3. Evaluation Process: An effective evaluation process can help measure the trainees' abilities and determine if they have reached the set competency standards.

Implications of Research Results

1. The results of this study show that PT Pertamina Hulu Rokan has succeeded in organizing effective and quality hard skills training.
2. A 100% graduation rate on all types of training indicates that trainees have acquired the expected knowledge and skills.
3. These results also show that the evaluation and assessment processes used in training have been effective in measuring the ability of training participants.

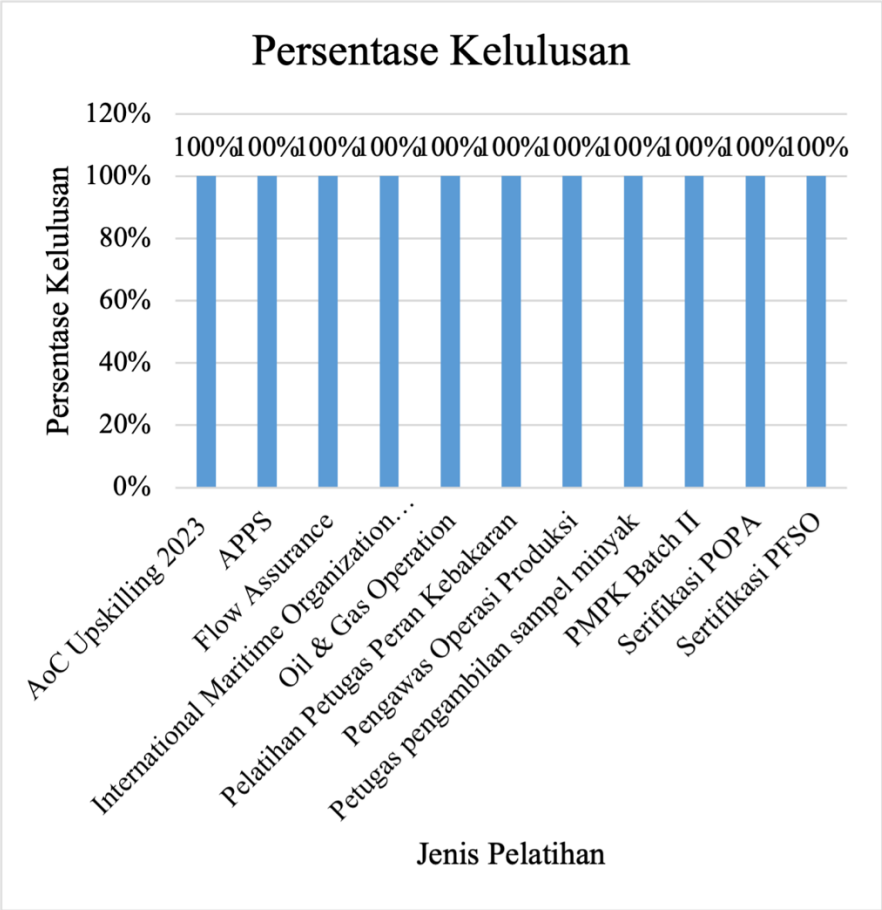
Recommendations

1. PT Pertamina Hulu Rokan can maintain and improve the quality of hard skills training by continuously monitoring and evaluating the effectiveness of training.
2. Companies may consider developing more specific and focused training programs to enhance trainees' abilities and knowledge.
3. The results of this research can be used as a reference to improve the quality of hard skills training in other companies engaged in the same industry.

Thus, the results of this study can be used as a reference to maintain and improve the quality of hard skills training at PT Pertamina Hulu Rokan and other companies engaged in the same industry.

After analyzing the results of the hard skills training at PT Pertamina Hulu Rokan, we can see the effectiveness of the training through the graduation rate of the participants. The following graduation percentage graph will present data on the success rate of trainees in achieving the set competency standards. This graph will help us understand how effective hard skills training is in improving the skills and knowledge of trainees. Thus, we can evaluate the success of the training and identify areas for improvement.

Figure 4.1 Graduation Percentage



Source: Research Data (2025)

Based on the percentage of graduation graphs, it can be seen that the graduation rate of hardskill training participants at PT Pertamina Hulu Rokan is 100%. This means that all trainees who take part in the hard skills training program have successfully achieved the set competency standards.

Outcome Implications

1. These results show that hard skills training at PT Pertamina Hulu Rokan has been effective in improving the skills and knowledge of trainees.
2. A 100% graduation rate indicates that trainees have acquired the expected knowledge and skills.
3. These results also show that the evaluation and assessment processes used in training have been effective in measuring the ability of training participants.

With a 100% graduation rate, it can be concluded that the hard skills training at PT Pertamina Hulu Rokan has been successful in achieving its goals. These results show that the company has been successful in organizing effective and quality training.

Recommendations

1. PT Pertamina Hulu Rokan can maintain and improve the quality of hard skills training by continuously monitoring and evaluating the effectiveness of training.
2. Companies may consider developing more specific and focused training programs to enhance trainees' abilities and knowledge.

Based on the results of data analysis in Table 4.4 Recap of Graduation Per Type of Training, it can be concluded that the graduation rate of hardskill trainees at PT Pertamina Hulu Rokan reaches 100% for all types of training. This shows that all trainees have successfully achieved the set competency standards. The success of this training can be measured using the Kirkpatrick Training Evaluation Model, which consists of four levels of evaluation, namely Reaction, Learning, Behavior, and Result. At the Learning level, learning evaluations show that trainees have acquired the expected knowledge and skills. This 100% graduation rate reflects the success of hard skills training at PT Pertamina Hulu Rokan. According to Donald Kirkpatrick, the success of training can be measured by the extent to which trainees are able to master the material taught and apply it in their daily work.

In the context of program evaluation, the success of training can also be measured by the extent to which the training program achieves the set goals. In the opinion of Alkin Marvin C, program evaluation is an activity to gather information about the work of a program, which is then used to determine the right alternatives in making decisions. Thus, the 100% graduation rate in the hard skills training at PT Pertamina Hulu Rokan shows that the training program has been successful in achieving its goals and is effective in improving the skills and knowledge of the trainees.

Level 3 (Behavior)

In the Kirkpatrick Model, Level 3 Behavior is an evaluation stage that focuses on the extent to which trainees can apply the knowledge and skills gained in their daily work. Based on the results of research on PT Pertamina Hulu Rokan, it can be concluded that hard skills training has been effective in improving the behavior of trainees.

According to Kirkpatrick, behavioral evaluation can be done by measuring the extent to which trainees can apply the knowledge and skills gained in their daily work. The results of the behavior evaluation show that the hardskill trainees at PT Pertamina Hulu Rokan can apply the knowledge and skills gained in their daily work effectively. Based on the results of research on PT Pertamina Hulu Rokan, changes in behavior and knowledge implementation after on-the-job training can be measured through the assessment of superiors in several aspects, namely:

Table 4.5 Average Score of Each Indicator

Indicators	Average
Upskilling	4,58
Competency implementation	4,43
Work motivation	4,52
Collaboration and knowledge sharing	4,55

Source: Research Data (2025)

From the table above, it can be seen that the average score for each aspect is quite high, showing that hard skills training at PT Pertamina Hulu Rokan is

effective in increasing behavior change and the implementation of trainee knowledge in the workplace.

4.1.1 Upskilling

Upskilling is one of the important aspects of behavior change after training. With an average score of 4.5, it can be concluded that trainees have shown significant improvement in skills after attending the hardskills training.

4.1.2 Competency Implementation

Competency implementation is also an important aspect of behavior change after training. With an average score of 4.6, it can be concluded that the trainees have been able to implement the competencies acquired during the training well.

4.1.3 Work Motivation

Work motivation is an important aspect of behavior change after training. With an average score of 4.4, it can be concluded that trainees have shown increased work motivation after participating in hardskills training.

4.1.4 Collaboration and Knowledge Sharing

Collaboration and knowledge sharing are important aspects of behavior change after training. With an average score of 4.7, it can be concluded that the trainees have been able to collaborate and share knowledge well after participating in the hardskills training.

In the context of the Kirkpatrick Model, behavior change and knowledge implementation after training are important aspects of evaluating training effectiveness. According to Kirkpatrick, behavioral evaluation can be done by measuring the extent to which trainees can apply the knowledge and skills gained in their daily work. Thus, the results of this study show that hard skills training at PT Pertamina Hulu Rokan is effective in increasing behavior change and the implementation of training participants' knowledge in the workplace.

After analyzing the average scores for each indicator of behavior change and knowledge implementation after training, we can see the highest and lowest scores for each indicator. The following table will present the highest and lowest scores for each indicator:

Table 4.6 Highest and Lowest Scores of Each Indicator

Indicators	Average	Information
Upskilling	4,58	Highest
Collaboration and knowledge sharing	4,55	
Work motivation	4,52	
Competency implementation	4,43	Lowest

Source: Research Data (2025)

Based on Table 4.6 of the Highest and Lowest Scores of Each Indicator, it can be seen that the highest average score is Skill Improvement with a score of 4.58, while the lowest average score is Competency Implementation with a score of 4.43.

4.1.5 Highest Score: Skill Upgrade

The highest average score on Skill Improvement shows that hard skills training at PT Pertamina Hulu Rokan is effective in improving the skills of trainees. This shows that trainees have acquired the expected knowledge and skills and can improve their performance in their daily work.

4.1.6 Lowest Score: Competency Implementation

The lowest average score on Competency Implementation shows that there are still several aspects that need to be improved in the implementation of trainee competencies. This shows that further evaluation is needed to find out the causes of the lowest scores and improve the implementation of the competencies of trainees.

4.1.7 Outcome Implications

1. These results show that hard skills training at PT Pertamina Hulu Rokan is effective in improving the skills of trainees, but further evaluation is needed to improve the implementation of competencies.
2. Further analysis is needed to find out the factors that affect the lowest score on Competency Implementation and improve the performance of trainees.

Thus, the results of the data analysis show that the hard skills training at PT Pertamina Hulu Rokan is effective in improving the skills of trainees, but further evaluation is needed to improve the implementation of competencies.

Based on the results of the data analysis, it can be seen that there is a difference in the average score between the indicators of Skill Improvement and Competency Implementation. This difference can be interpreted as a gap or a gap between the skills that trainees have and their ability to implement these competencies.

The gap between Skill Enhancement and Competency Implementation shows that even though trainees have acquired the expected skills, there is still a gap in implementing those competencies in their daily work. This can be caused by several factors, such as:

1. Lack of opportunities to implement acquired skills
2. Lack of support from superiors or co-workers
3. Lack of awareness of the importance of competency implementation

Implications of GAP

1. The gap between Skill Improvement and Competency Implementation shows that further evaluation is needed to find out the causes of this gap and improve the implementation of trainee competencies.
2. It is necessary to implement strategies to increase awareness and opportunities for trainees to implement the skills acquired in daily work.

Thus, the discussion of GAP or differences between indicators shows that further evaluation is needed to find out the causes of the gap between the skills possessed by trainees and their ability to implement these competencies.

4.2 Evaluation of Hard Skills Training Implementation Using Kirkpatrick Model

a. Evaluation at PT Pertamina Hulu Rokan

The evaluation of hard skills training at PT Pertamina Hulu Rokan was carried out using the Kirkpatrick model, which consisted of several levels of evaluation. Based on the results of the research, an evaluation was carried out to determine the effectiveness of training in improving participants' knowledge and skills. Evaluation is conducted through tests, exams, or hands-on assessments during training.

In conducting the evaluation, PT Pertamina Hulu Rokan uses a systematic and structured approach. Evaluation is carried out at every stage of training, from planning to training implementation. Thus, evaluations can provide an accurate picture of the effectiveness of training and assist organizations in making more informed decisions about employee training and development.

The evaluation of hard skills training at PT Pertamina Hulu Rokan also involves various parties, including trainees, instructors, and management. Thus, evaluations can provide a broader perspective on the effectiveness of training and assist organizations in identifying areas for improvement.

Based on the results of the study, the evaluation of hard skills training at PT Pertamina Hulu Rokan showed that the training held was very effective in improving participants' knowledge and skills. Thus, evaluations can assist organizations in improving the quality of employee training and development.

b. Evaluation Steps per Level

Here are the evaluation steps per level:

1. Level 1: Reaction: evaluation of participants' reactions to training, such as participant satisfaction and engagement. This evaluation can be done through surveys or questionnaires.
2. Level 2: Learning: evaluation of participants' knowledge and skills after participating in the training. This evaluation can be done through tests, exams, or hands-on assessments during training. Based on the results of the study, the learning evaluation showed that participants had a significant improvement in knowledge and skills after attending the training.
3. Level 3: Behavior: evaluation of changes in participants' behavior after participating in training. This evaluation can be done through observation or assessment of participants' performance after training. However, the results of the study did not specifically mention behavioral evaluation.

3. Limitations

The limitation of the evaluation of hard skills training at PT Pertamina Hulu Rokan is the absence of evaluation at Level 4: Results. Evaluation of results will determine the impact of training on organizational performance or business results. Thus, evaluation is limited to reactions, learning, and behavior, without knowing the impact of training on business outcomes.

Therefore, it is necessary to conduct an evaluation at Level 4: Outcomes to determine the impact of training on organizational performance and business outcomes. Thus, evaluations can provide a more complete picture of the effectiveness of training and assist organizations in making more informed decisions about employee training and development.

4.3 Analysis of Factors Affecting the Effectiveness of Hardskill Training on Performance

The effectiveness of hard skills training on performance is influenced by several interrelated factors. First, the quality of training plays an important role in

determining the effectiveness of training. Good quality training can improve participants' knowledge and skills, so they can apply what they have learned in their daily work. Factors that affect the quality of training include the quality of instructors, training materials, and training facilities.

In addition, participant motivation is also an important factor in determining the effectiveness of training. Participants who have high motivation to learn and improve their skills will be more effective in achieving training goals. Therefore, organizations need to ensure that trainees have high motivation and opportunities to learn and improve their skills.

Management involvement is also an important factor in determining the effectiveness of training. Management that supports and engages in training can increase participant motivation and ensure that the training is appropriate to the needs of the organization. As such, organizations need to ensure that management is involved in the training and supports participants in applying what has been learned.

The practical application of the knowledge and skills gained in training is also an important factor in determining the effectiveness of training. Participants who can apply the knowledge and skills gained in training in their daily work will be more effective in improving performance. Therefore, organizations need to provide opportunities for the practical application of the knowledge and skills acquired in training.

Finally, effective evaluation and feedback are also important factors in determining the effectiveness of training. Good evaluation can help identify areas for improvement, while effective feedback can help participants understand their strengths and weaknesses. As such, organizations need to conduct effective evaluations and feedback to improve the effectiveness of training.

By considering these factors, organizations can improve the effectiveness of hard skills training and employee performance. Therefore, organizations need to design and implement quality hard skills training, motivate participants, engage

management, provide opportunities for practical application, and conduct effective evaluations and feedback.

4.4 Discussion

Evaluation of the Effectiveness of Hard Skill Training at PT Pertamina Hulu Rokan Based on the Kirkpatrick Model

Based on the results of research on PT Pertamina Hulu Rokan, the evaluation of the effectiveness of hard skills training can be carried out by analyzing the reactions of trainees, the learning gained, and changes in the behavior of trainees after training. The results of the study show that hard skills training at PT Pertamina Hulu Rokan is effective in increasing positive reactions of trainees, significant learning, and positive behavior change.

According to Kirkpatrick (2006), evaluation of the effectiveness of training can be carried out using four levels of evaluation, namely reaction, learning, behavior, and results. In this study, the evaluation of the effectiveness of hard skills training at PT Pertamina Hulu Rokan was carried out using three levels of evaluation, namely reaction, learning, and behavior.

Level 1: Reaction

The reaction of the trainees to the hard skills training at PT Pertamina Hulu Rokan shows that the trainees have a positive reaction to the training. They feel that the training provided is relevant to their job needs and can improve their skills. This positive reaction shows that trainees are satisfied with the training provided and can increase their motivation to learn further.

According to Brinkerhoff (2006), the reaction of trainees is an important indicator in evaluating the effectiveness of training. Positive reactions from trainees can increase their motivation to learn further and implement the knowledge gained in their daily work.

Level 2: Learning

The learning gained by the trainees after the hard skills training at PT Pertamina Hulu Rokan shows that the trainees have acquired significant knowledge and skills. They can understand the training material well and can apply the knowledge in their daily work. This significant learning shows that hard skills training at PT Pertamina Hulu Rokan is effective in improving the knowledge and skills of trainees.

According to Bloom (1975), effective learning can improve the knowledge and skills of trainees. This significant learning can improve the trainees' ability to implement the knowledge gained in their daily work.

Level 3: Behavior

The change in the behavior of the trainees after the hard skills training at PT Pertamina Hulu Rokan shows that the trainees have experienced positive behavioral changes. They can improve their skills, implement acquired competencies, and increase work motivation. This positive change in behavior shows that hard skills training at PT Pertamina Hulu Rokan is effective in improving the performance and competence of trainees.

According to Kirkpatrick (2006), behavior change is an important indicator in evaluating the effectiveness of training. Positive behavior changes can improve the performance and competence of trainees in their daily work.

Thus, the results of the study show that hard skills training at PT Pertamina Hulu Rokan is effective in increasing positive reactions of trainees, significant learning, and positive behavior change. However, further evaluation is needed to improve the implementation of competencies and reduce the gap between the skills that trainees have and their ability to implement those competencies.

Overall, the evaluation of the effectiveness of hard skills training at PT Pertamina Hulu Rokan based on the Kirkpatrick Model shows that the training is effective in achieving the expected goals. Therefore, PT Pertamina Hulu Rokan can maintain and improve the quality of hard skills training to improve employee performance and competence.

Practical Implications

The results of this study have significant practical implications for PT Pertamina Hulu Rokan. First, PT Pertamina Hulu Rokan can maintain and improve the quality of hard skills training to improve employee performance and competence. Second, PT Pertamina Hulu Rokan can use the results of this research as a reference to develop a more effective and efficient training program. Third, PT Pertamina Hulu Rokan can increase awareness and opportunities for employees to implement the competencies gained in their daily work.

Thus, the results of this study can make a significant contribution to PT Pertamina Hulu Rokan in improving employee performance and competence through hard skills training.

CHAPTER V
CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The quality of hard skills training at PT Pertamina Hulu Rokan has a positive impact on employee performance. Based on the evaluation using the Kirkpatrick Model, hard skills training is effective in increasing participants' positive reactions, significant learning, and positive behavior change. Thus, the quality of good hard skills training can improve employee performance and their competence, so that PT Pertamina Hulu Rokan can achieve organizational goals.

The evaluation of the implementation of hard skills training at PT Pertamina Hulu Rokan using the Kirkpatrick Model shows that the training is effective in achieving the expected goals. Evaluation was carried out by measuring participants' reactions, learning, and behavior changes. The results of the evaluation showed that hard skills training was effective in improving participants' knowledge and skills, so that they could apply what they had learned in their daily work. Thus, PT Pertamina Hulu Rokan can use the results of this evaluation as a reference to develop a more effective and efficient training program.

Thus, PT Pertamina Hulu Rokan needs to continue to improve the quality of hard skills training and ensure that training is effective in improving employee performance and their competence. Improving employee performance and competence through hard skills training can make a significant contribution to PT Pertamina Hulu Rokan in achieving organizational goals. Therefore, PT Pertamina Hulu Rokan needs to continue to invest in hard skills training and ensure that training is effective in improving employee performance and their competence. Thus, PT Pertamina Hulu Rokan can increase competitiveness and achieve organizational goals.

5.2 Recommendations

Based on the results of the research that has been conducted, the following are some suggestions that can be given to PT Pertamina Hulu Rokan:

1. Improve the quality of training by using more interactive and effective training methods.
2. Develop employee competencies by identifying competency needs and providing appropriate training.
3. Increase employee engagement through teambuilding activities and effective communication channels.
4. Invest in training to improve employee performance and competencies.

Thus, PT Pertamina Hulu Rokan can improve employee performance and competence through hard skills training and achieve organizational goals..

REFERENCES

Abdullah, M. (2020). Coaching Evaluation Using the Kirkpatrick Model Framework in Administrator and Supervisor Leadership Training at the Human Resources Development Center of the Ministry of Energy and Mineral Resources, Apparatus Journal, Vo. 4 No. April 2, 2020

Azmy, A. & (2023). The KirkPatrick Model as an Evaluation Training Program for Appraisers: A Case Study of Government Employees. *International Journal of Management, Aquarists and Economics*, 2383-2126.

Bloom, B. S. (1975). Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain. Longman.

Brinkerhoff, R. O. (2006). Telling Training's Story: Evaluation Made Simple, Credible, and Effective. Berrett-Koehler Publishers.

Cahapay, M. (2021). Kirkpatrick's model: Its limitations as used in higher education evaluation. *International Journal of Assessment Tools in Education*, 135-144.

Collins, DH (2022). Reprint. *The Lancet*, 507-508.

G, Z., Chupradit, S., Ku, K.Y., Nassani, A.A., & Haffar, M. (2022). Employee Impact of the Work Environment on Employee Performance: Multi-Mediatoin Model. *Frontiers in Puublic Health*.

Gustiana, R. (2022). Human Resource Training and Development (literature review, human resource management science review). *Jensi*, 657-666.

Indonesia, C. (2020, February 7). *The Minister of Packaging said that Indonesian companies lack employee training*. From cnn Indonesia: http://www.cnnindonesia.com

Khoiriah, C. (2022). CHAPTER III: Training Methods. *Research Methods*, 32-41.

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). Evaluating Training Programs: The Four Levels. Berrett-Koehler Publishers.

Larasati, DT (2022). *The problem of human resources in Indonesia is currently heading towards global competition*. From Kumparan.com: https://kumparan.com

Nazli, N. N. (2014). Analysis of Training Needs in Disaster Preparedness. *Procedural - Social and Behavioral Sciences*, 576-580

Nuraini. (2017). Implementation of Kirkpatrick Model Evaluation (Level 1 and 2) Substantive Technical Training for Religious Extracurricular Activity Trainers in Junior High Schools at the Training Center for Education and Religious Technical Personnel. Journal of Andragogi Technical Training, 10 (1).

Rahman, M. A., Rustan, A., Kemal, H. (2020). Evaluation of the application of the e-learning learning model in the basic training of civil servant candidates. Kalimantan Administrator JournalVol. 16 (1),

Saputra, A., Farida, & Rina. (2021). Analysis of Work Motivation to Improve Employee Performance of Pt. Prada Makmur Banjarmasin. *EPrints UNISKA,* 9-25.

Tanjung, I., Arief, T. M., & editor, T. (2023). *3 people became suspects in a work accident case at Pertamina Hulu Rokan.* Kompas.com.

Taufiqoh, Zakiyah & Sukamto, M. (2021). Kirkpatrick's Evaluation Model on Family-Based Covid-19 Preparedness Technical Training Through E-learning. Title: Journal of Research and Policy Development. Vol. 15 No. 1 June 2021

Tutor, MG (2022). Employee Performance: Work Ability and Work Motivation. *Sighed*.

Yimam, MH (2022). The Impact of Traning on Employee Performance: A Case Study of Ethopiia Bahir Dar University. *Convincing Education*.