# Designing architecture for training programmes and evaluating training effectiveness of Indian Oil Corporation Ltd.

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**Abstract**

With advancement in technology & spread of business on a global scale, it has become essential for organizations to concentrate on training that equips them to meet global challenges. The diversities that are ever increasing at the workplace further necessitate employees to be well trained for fostering improved performances. This paper focuses specifically on the training Architecture of IOCL which includes mainly two aspects. Firstly, it can be said that a proper & specific training leads to attainment of goals for which it needs a proper framework which should be properly featured. Secondly, IOC is a leading company of several products like oil, grease & others & have an identical structure of training program. The identical structure of IOC can be depicted by its Training Architecture. This study primarily focuses on the training programmes that are conducted for the employees of Eastern Region relating to their functional, behavioral and attitudinal change and for their overall development. On the basis of available data in the company and some research, the prepared report is presented.

**Key Words**: Training Architecture, Development, Global Challenges, Technology, Goals

**Introduction**

In the present competitive and dynamic environment, it has become essential for all organizations to build and sustain competencies that would provide them sustainable competitive advantage. Dynamic and growth-oriented organizations recognize training as an important aspect of the managerial function in a rapidly changing economic and social environment. The main aspect of this article is related with the Training and its structural format of IOCL and to provide details about the company's training pattern.

Every organization needs to have well-trained and experienced personnel to perform the activities that have to be done. If the current or potential job occupant can meet this requirement, training is not important.

**Indian Oil Corporation or Indian Oil** has emerged as the largest Indian Corporate in the latest *Fortune India 500*rankings. IOCL is the 20th largest petroleum company in the world. In 2007, the corporation received plenty of awards, Oil Industry Safety Directorate Awards, *'Most Admired Retailer of the Yea*r' award.

**Training Theory**

**Training** and **Development** of Human Resources in industry has been recognized as an important tool for the development of desirable motives and attitudes for both the management and labour. *Training serves as an important means for the development of effective work habits and methods of work and thereby improves job performance, reduces waste and accidents, prepares individuals for modified jobs, avoids unnecessary turnover, improves the quality of the product and so on.*

In a rapidly changing society, *"Employee Training and Development is not only an activity that is desirable but also an activity that an organization must commit resources to, if it is to maintain a viable and knowledgeable work force"*.

The analysis of any training problem begins with the statement of training needs. A need for performance deficiency is the difference between actual performance and the desired performance. The actual performance of individual may be illustrated as PC+P. Where 'PC' = Present capacities of individual, 'P' = Potential of the individual

The desired performance of the same individual can be analysed in training and illustrated as P1C1+P.  **Performance Deficiency = (P1C1+P) – (PC+P).**

⇨**EVALUATION OF TRAINING**

Measuring the effectiveness of training programs, however, consumes valuable time and resources – time and resources that are already in short supply. Donald Kirkpatrick's four-level evaluation model remains as the most well-known and used model today. Kirkpatrick developed his model in the late 1950s and the model has since been adapted and modified by a number of writers. The basic structure of

⇨*Kirkpatrick's four-level model* is shown below:

*Level 4 – Results*

What are the organizational benefits resulted from the training?

*Level 3 – Behavior*

To what extent did participants change their behavior back in the workplace as a result of the training?

*Level 2 – Learning*

To what extent did participants improve knowledge and skills and change attitudes as a result of the training?

*Level 1 – Reaction.*

**Using the Kirkpatrick Model**

The basic steps are:

1. Design the evaluation.
2. Collect the data.
3. Analyze the data.
4. Report the results.

*Level 1 (Reaction)*

- completed participant feedback questionnaire
- informal comments from participants
- focus group sessions with participants

*Level 2 (Learning)*

- pre- and post-test scores
- on-the-job assessments
- supervisor reports

*Level 3 (Behavior)*

- completed self-assessment questionnaire
- on-the-job observation
- reports from customers, peers and participant's manager

*Level 4 (Results)*

- financial reports
- quality inspections
- interview with sales manager

When considering what sources of data you will use for your evaluation, think about the cost and time involved in collecting the data. Balance this against the accuracy of the source and the accuracy you actually need.

⇨**DESIGNINIG ARCHITECHTURE FOR TRAINING PROGRAMMES**

**Learning Objectives**

Learning objectives or outcomes are what you want the training to do. In other words, if you are designing training to improve staff performance, the measurement of improved performance over a phase of time post training would be a learning objective. For example, to decrease order processing time by 10% by the end of Q3 by training staff on the new order processing software.

**Training Program Framework**

The program framework is the logistical shell of the training program. Often, inexperienced training managers jump to "deciding on content" before the framework has been decided.

| TRAINING BUDGET FOR LAST 5 YEARS OF IOCL | |
|---|---|
| YEAR | AMOUNT(Rs.) |
| 2009-10 | 19,19,719 |
| 2010-11 | 14,35,887 |
| 2011-12 | 31,62,803 |
| 2012-13 | 37,10,578 |
| 2013-14 | 37,23,266 |

**Evaluation & Training Metrics**

How the program is evaluated and which training metrics will be measured is the next step in the development process. An annual review of the training program is another important part of the program design as it will ensure that the content remains fresh and relevant. A carefully planned training program will meet learning objectives and provide evidence through training metrics that the program is meeting the needs of the organization and the participants.

⇨**Training Methods**:

The training programmes commonly used to train operative & supervisory personnel are discussed below. They are classified into on-the-job training & off-the-job training programmes.

**Evaluation of Training Programme (Fig 4)**

The specification of values forms the basis for evaluation. The basis of evaluation and the mode of collection of information necessary for evaluation should be determined at the planning stage. The process of training evaluation has been defined as "any attempt to obtain information on the effects of training performance and to assess the value or training in the light of that information." Evaluation leads to controlling and correcting the training programmes. Hamblin suggested five levels at which evaluation of training can take place, viz. reactions, learning, job behavior, organization and ultimate value.

**Objectives**

The present study purports to examine the training architecture and evaluating training effectiveness of IOCL. In this case we have both the primary and derived objectives before going to conduct such a colossal activity.

There are two main objectives for the project are

i) The Primary Objective is to develop and introduce an innovative method of designing the Architecture for Training Programme of IOCL,

ii) The Architecture so developed will be in consonance with the existing Training Programme in IOCL, it will be usable, sustainable and will help aid to tincture the existing Programmes presently in use. Moreover, iii) It will maintain and be part of the minimum quality standard for Human Resource Management in any large Public Sector Organization. B. The secondary objective is to learn and understand the crucial issues included in Training Programmes, Methodology and Operations.

*TRAINING INSTITUTE AT OUR EASTERN REGION – KOLKATA*

Headed by chief Manager (Training) the center caters to the needs of all the employees of Eastern Region I.e. West Bengal, Bihar & Orissa.

The main functions are:

- To provide statutory training to all employees (Blue collar & White Collar) &   Officers.

- To conduct supervisory development Programme & workers education Programmes.

Besides these, this institute provides specialized training in the following fields.

- Technology of refining

- Power generation & Electronics

*IOCL has been chosen for doing the project work* because of the following factors:

- IOCL is Fortune 500 Company in India.

- IOCL gives good training & development for the project studies. I have scope to know about the training and training culture.

*Some examples of IOCL Training Programmes*:

1.   VIGILANCE AWARENESS WORKSHOP AT ORISSA STATE OFFICE

2.   XTRAPOWER FLEET CARD TRAINING PROGRAMME FOR RETAIL OUTLET MANAGERS/PUMP ATTENDANTS

**Training Programme at IOC (Fig 1):**

At IOC the training programmes is designed with the following objectives:

*a. To impart to new entrants basic knowledge and skills*

*b. To assist the employers to function more effectively in this present positions by exposing them   to the latest concepts, information and techniques and developing in them skill required in their fields.*

*c. To build up a second line of competent officers and prepare them as a part of their career progression to occupy more responsible positions.*

*d. To impart customer education.*


**TYPES OF TRAINING**

The variety of Functional & Developmental Training Programmes, which address training, needs of employees, their role requirements and organizational needs, in terms of knowledge, skills & attitude include the following:

- In-House Training (at training centers)
- External Training (conducted by other institutions)
- Training for customers (such as Defense personnel etc.)


DESIGN & DELIVERY OF TRAINING PROGRAMS

The various training programs are designed and delivered by training managers at the HO & regional training centres (Fig 3).

The steps in planning training procedure are:

**STEP 1**: Defining course objectives.

**STEP 2**: Nominations

**STEP 3:** Finalize course details

**STEP 4:** Finalize Training Venue and other arrangements

**STEP 5:** Securing financial approval

**STEP 6:** Receive confirmation from the participants

**STEP 7:** Sourcing of faculty

**STEP 8:** Decide Methodology

**STEP 9:** Training room set-up


ACTIVITIES DURING CLASSROOM HOURS:

**STEP 1:** Inauguration by appropriate authority

**STEP 2:** Introduce the topic

**STEP 3:** Introduce the faculty

**STEP 4:** Briefing and De-briefing

**STEP 5:** Ice-breaking session

**STEP 6:** Pre-course Quiz

**STEP 7:** Conducting the session

**STEP 8:** Post-course quiz

**STEP 10:** Follow-up on training


MONITORING AND REVIEW OF TRAINING FUNCTION

After a training program is delivered, program Feedback note for each program giving details of the program and session ratings obtained is processed for the management's review.

Monthly reports from ER, WR, SR & NR are received at the HO by the 1st week of the following month. HO training department complies all the reports in one MIS sheet and gives it to GM-HR and finally to ED-HR, HO.


TRAINING EFFECTIVENESS EVALUATION (Fig 2)

Training is done with missionary zeal in Indian Oil. The organization is large in terms of size, population, geographical spread and number of roles. Hence training variety is also myriad ranging from knowledge, skill, behavioral and attitudinal to technical, managerial developmental and functional

Kirkpatrick's Model of Training Evaluation is being followed in Indian Oil for evaluation of training effectiveness.

**SESSION RATING:** Session wise evaluation is done for each training program. The forms are anonymous to encourage honest and frank opinion.

The participant is asked to tick mark the most appropriate choice on a scale of 4. The weight age being:

| Excellent | Good | Satisfactory | Average |
|-----------|------|--------------|---------|
| 4 | 3 | 2 | 1 |

There is also enough scope for writing suggestions for improving the session. These forms are evaluated one %age basis.

**Training Architecture**

The Training & Development department of IOCL has taken a significant initiative to enhance effectiveness of training programs/sessions. The basic philosophy was to shift from Pedagogy to Andragogy model.

Accordingly, three key elements of respective sessions are formulated as per the target audience.

a)       Objective of the session

b)       Deliverables of the session: it contains detailed session design in terms of four quadrants.

          Measurable of the session: these include 10-15 questions on each session.

**Training Targets**:

The memorandum of understanding between Indian Oil and Ministry of Petroleum & Natural Gases has the following criteria:

a)       Training – employee participants to be covered during the year – 55%.

b)       Computer training (percentage of eligible employees) – 16%.

The target of 55% for training includes the computer training imparted to employees as was the practice in earlier years. The target of 16% for computer training covers the basic computer literacy training programme to be imparted to eligible employees.

ANNUAL TRAINING CALENDER: April-March is the Training Year at Marketing Division of Indian Oil.

EXISTING TRAINING MANAGEMENT REVIEW SYSTEM

Monthly reports from NR (Northern Region), ER (Eastern Region), WR (Western Region) & SR (Southern Region) are received in Head Office (HO). The regions should send them to HO by 1st week of following month. HO Training Department complies all the reports in one MIS Sheet and it gives to GM – HR and finally to ED – HR, HO.

**Research Methodology**

Since the project work is intensive, but of limited duration, it has necessarily have to adopt a Descriptive Method, will quantative inputs where necessary. However, the project has to be inevitably based on certain assumptions.

a) It is assumed that the study in the Eastern Region of IOCL in Kolkata will be representative of various methods of programmes and Training in use throughout the corporation. Therefore, the survey conducted is among employees and trainees of the Eastern Region of IOCL, who have been subjected to a one-to-one interview on the basis of a regular instrument of a questionnaire for feedback, to be analysed.

b) Sample Size: A Sample Size of 30 employees and Trainees has been chosen for the survey, to elicit a reasonably fair assessment of a cross section of employee assessment and attitudinal and behavioural profile, within a reasonable range of statistical error.

c) It is assumed that employees, interviewed/surveyed being responsible Public Sector employees, will provide correct information requested.

d)It is simultaneously assumed that those being interviewed will not withhold any information sought, for fear or favour as the survey being conducted is for a scholastic purpose and will accrue to the overall benefit of the Corporation and its employees.

e)The assumption is that within the constraints, the methodology adopted is the best one under the circumstances, and is in consonance with the accepted methodologies of such surveys, for proper analysis and evaluation of data collected.

1. **Surveys**: In the kind of project in hand, particularly as it concerns HR concerns, Personal Survey Method, based on personal interviews has been selected. Personal Interviews have been selected because in such surveys detailed information can be collected.

2. **Structuring of Questionnaire and type of Questions**: The questionnaire has been structured carefully to elicit both facts and attitude and opinions of the respondents. For this purpose, a mix of open-ended questions (on a scale of preference), dichotomous questions, and multiple choices of questions have been framed. Leading questions have been avoided, so as to make respondent easy to handle and receive the most honest answer.

3. **Sampling Techniques:**

   i.      Sampling Units: Being the most significant aspect of any HR Survey, it is essential to carefully choose sample units as primary source materials. IOCL is one of the major public sector undertakings, and its employees and trainees are representatives not only of all major PSEs in India, but of the oil industry dates from among a sample of such employees for the project in hand, randomly selected for the purpose of interviewed.

   ii.     Sample Frame: For the purpose of choosing the Sample Frame, the Eastern Region HQs of IOCL in Kolkata has been decided on for enquiry. Since this Region covers a large area of operation it is expected that the survey conducted among a target of respondents including executives, employees and trainees will be sufficiently indicative of the opinions, attitudes and facts of the operations throughout the Corporation as a whole.

   iii.    Random Sample: For the purpose of the present survey, the procedure of simple random sample has been adopted, as in this process; the selection is free from human bias. Other specialized samplings like Systematic Sampling, Stratified Random Sampling or Cluster Sampling etc have been avoided as both inappropriate and unnecessary.

   iv.     Sample Size: It is known that larger the sample size, better will be the evaluation. For the purpose of the project, a total sample size **of 30 employees** including trainees has been decided to arrive at a far representation of the current population in ER.

   v.      Sampling Procedures: The choice of respondents is essentially important in all such surveys. For our purpose, to obtain a representative sample, we have adopted a convenience, purposive and quota sampling (which is non-profitability in nature)

4.      **Interview technique:**

   **a)** A personal face-to-face interview and interaction with each of the target sample is intended. The interview will be conducted on the basis of the instrument of questionnaire. The responses of the interviewees will be noted down and duly authenticated after each interview.

   **b)** Since the function of the researcher (interviewer) is that of an impartial observer without any preconceived notion or bias, the interview will be strictly on the basis of listen, understand and record.

   **c)** Again, as the interview will be mainly concentrating on a prepared questionnaire, the arrangement, preparation and sequencing of the questions are of utmost importance. Care will be taken to ensure that no suggestive or "leading" question is put to the respondent. The questionnaire will be totally free from any suggestion that the researcher wants or prefers one particular alternative to the remaining ones. In other words, it will be completely prejudice-free.

**The Rationale behind the present Survey:**

The Focus Statement


In framing the Focus Statement, we have taken the advice of

**Sri. B.M.Bansal, Chairman**, IOCL, "*Have trust in people and you can trust them to do well in business…*"


*Findings and Analysis*

*Employee's perception regarding Training imparted by IOCL*

- ➢ 66% of the employees feel that training is very much effective in real life situation while 28% feel that it is moderately effective. The rest 6% only feel that its effectiveness to some extent.

- ➢ Regarding the quality of training imparted, 24% of the employees rate it as excellent and 55% rate it as good. Only 7% think that it is satisfactory if the respondents rate the quality of training as average.

- ➢ About 76% of the employees opine that training imparted has made them either highly motivated or motivated to stay in IOCL and to improve themselves. Only $1/15^{th}$ of the employees do not think that they are motivated by the training imparted.

- ➢ About 7% of the respondents are not infused by the training imparted to accomplish their higher performance levels. The rest 89% think otherwise.

- ➢ Nearly 50% of the employees fully agree that the training imparted has infused them to undertake their jobs seriously. 38% either partially agree or opine that are infused when they are rewarded. The rest 14% respondents would not say anything.

- ➢ Majority of the respondents (66%) believe that top management think that people are extremely important resource. About $1/5^{th}$ of the respondents think that only some of the top management hold this view only 7% partially agree that the top management holds such view. Nearly all the employees (97%) think that training programmes taught them to perform their job well.


*Distribution of respondents according to their responses on issues focusing people's orientation:* Nearly $5/6^{th}$ (86%) of the employees' subscribe to the view that in their company loyalty is valued more than anything else. Only 7% of the employees do not subscribe to the view.

*Distribution of employees participating in the survey according to their opinions on job satisfaction:* Only 7% of the employees have strongly disagreed with the statement that they are highly satisfied with the pay packets. 59% of the employees have either strongly agreed or agreed with such statements.

*Distribution of respondents according to issue relating to innovation:* About 14% of the employees do not agree that employees in IOCL find creative and innovative ways of working without being constrained by precedents. About 24% employees have strongly agreed with the statement that employees in IOCL find creative and innovative ways of working without being constrained by precedents while $1/3^{rd}$ of the employees agreed with the statement and 28% partly agreed.


*Distribution of employees on the basis of their opinion regarding facilities offered by IOCL for work to meet the corporate objectives*. **:** Majority of the employees (48%) feel that the organizational inputs fully meet the corporate objectives while 31% feel that the inputs partly inputs. $1/6^{th}$ (nearly 17%) have no idea on the subject.

*Opinions on the issue related to customer satisfaction are presented:* 41% of the employees have said that the customer satisfaction index has been developed & measured in IOCL. 28% opine that CSI is measured occasionally. 21% have no idea that CSI has been developed and measured. 7% has informed that a method of measuring CSI has been developed but it is not measured.

*Analysis*

Analysis of this study will be done on the basis of various charts & diagrams. At first data will be collected through questionnaire & interview and then presented the data on the project. This analysis will give a clear idea regarding the current situation of all the workmen and facilitate the organisation to take corrective measures in solving the problems of the organisation. In this project questionnaire is a vital part. Many employees filled up the questionnaire and the filled-up questionnaire depicted their own point of view on the said project topic. Therefore, the questionnaire was very useful & timesaving in the initial stage, although considerable care had been taken in the construction and eventual interpretation. Moreover the surveys were followed-up by shorter quantitative informal interviews based on the initial findings (graph 1 to 8)

**Conclusion**

Training is an important part of an organization. This research project paper was undertaken with an objective to find out training needs and measurements of training effectiveness of all the employees of different nodal points. This study will help the management of Indian Oil Corporation ltd to identify the causes behind the non-involvement of the cent percent of employee in the training program and also the reason behind the dissatisfaction of the employees. Similarly, this study will also enable management to understand the basic need of employees as well as the organization in order to improve the current scenario and also provide tools for measuring effectiveness of training programme. Opinions expressed by the employees reveal that the training at IOCL is by and large effective, motivating and conducive to achieving results. Most of the employees opined that the quality of training imparted at IOCL is good, if not excellent. More than majority of the employees (66%) feel that top management considers employees to be extremely important resource. About 60% of the employees are satisfied with their pay packets and 1/3$^{rd}$ of the employees do not want any change of job. It must be borne in mind in this connection that only a small cross-section of the employees at IOCL is brought under study and findings from such a study do not necessarily qualify to be facts. However, since the survey conducted on the basis of face to face interviews with the IOCL employees of the Corporations Eastern Region Regional Office, which is one of the main Metro-Regional Offices of IOCL with a full-fledged and highly effective Training Department, it has been assumed that the survey results reflex the real life perceptions & opinions of a reasonably dependable cross-section of IOCL employees on the training that they have received.

**Recommendation**

After carrying out in-depth studies on the topic it reveals that despite providing opportunity to each employee to undergo respective training program, participation of the employees were found not so satisfactory. Hence it is recommended that effort should be made by the management to find out the reason behind this and motivate the employees in order to improve the situation.

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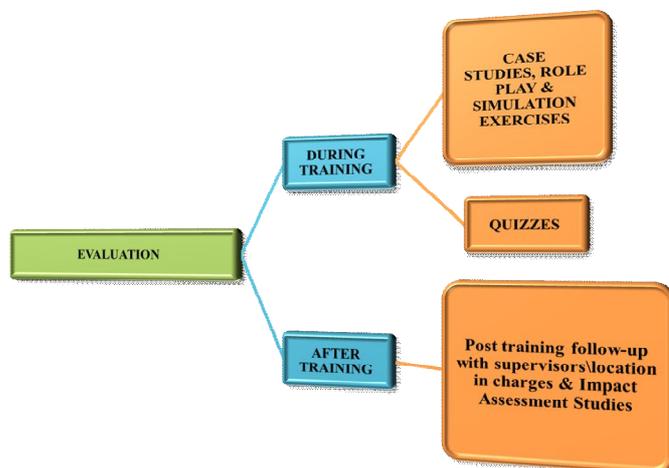
**Facts and Figures**

**1. Training Programmes of IOCL**

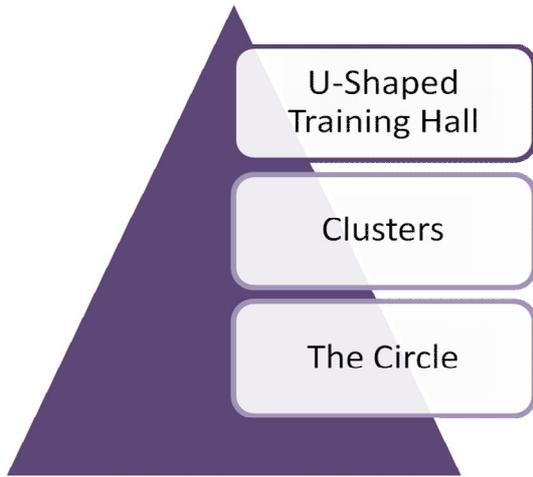**IOCL conducts training program in two ways like:**

> **Activities during training hours**
> **Activities during class hours**
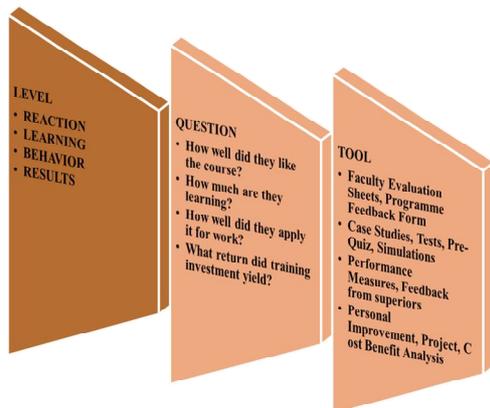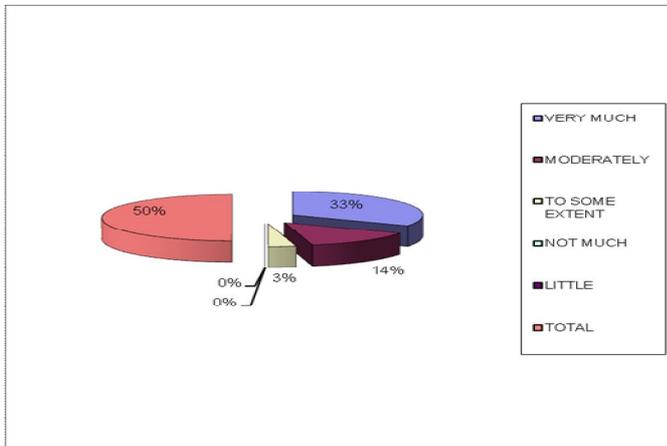


**2. Training Evaluation**

## 3. TRAINING ROOM LAYOUT/HALL



4. In Indian Oil, training evaluation is done at four stages

## THE PROCESS FLOW

**Graph**

1. How effective is the training in real life situation?



2. How will you rate the quantity of training **imparted** keeping in **view** the post-training & current job situation?
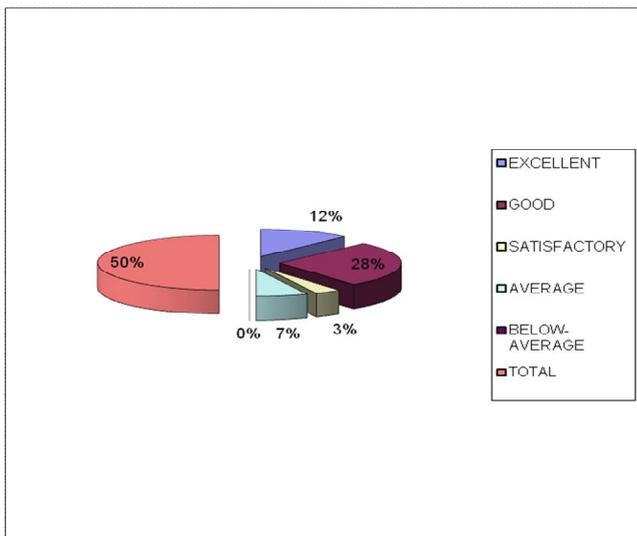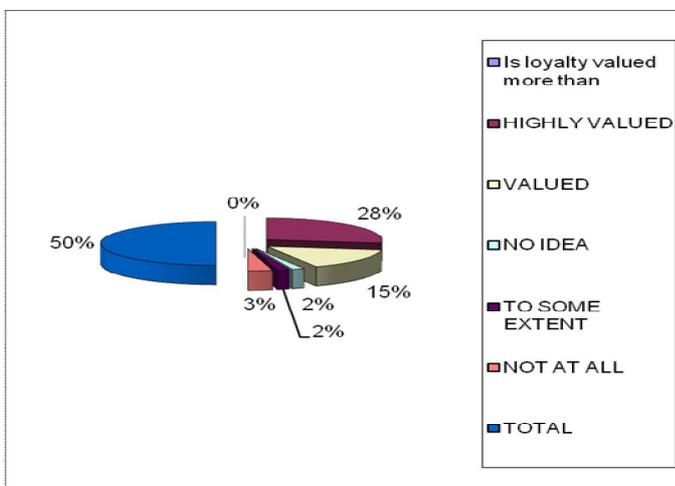
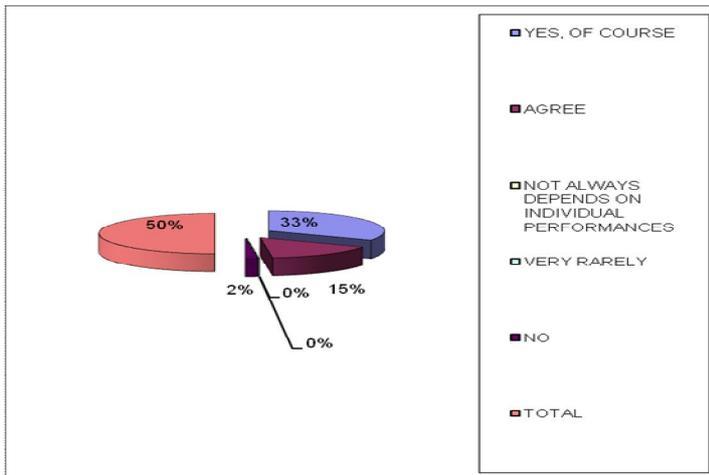3. Has in-house training of employees in their company enthused them to perform their jobs?
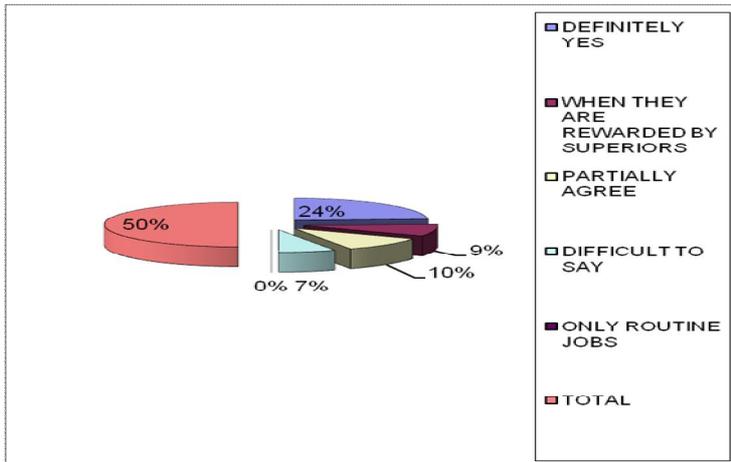


4. Has the training imparted **given** you sufficient **motivation** to stay in IOCL and to improve yourself?
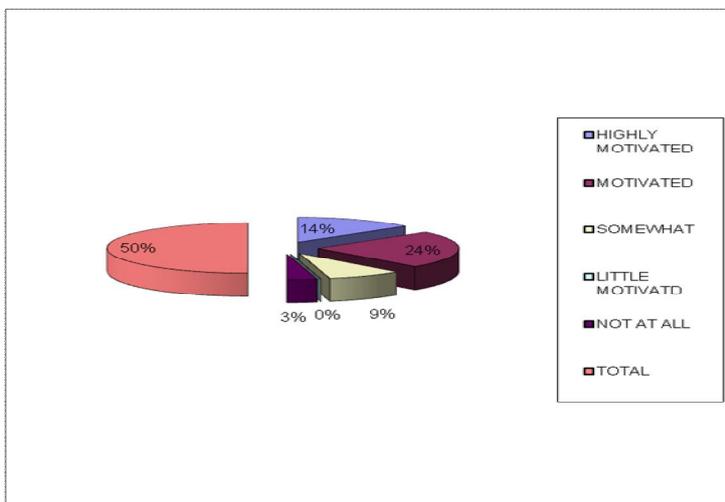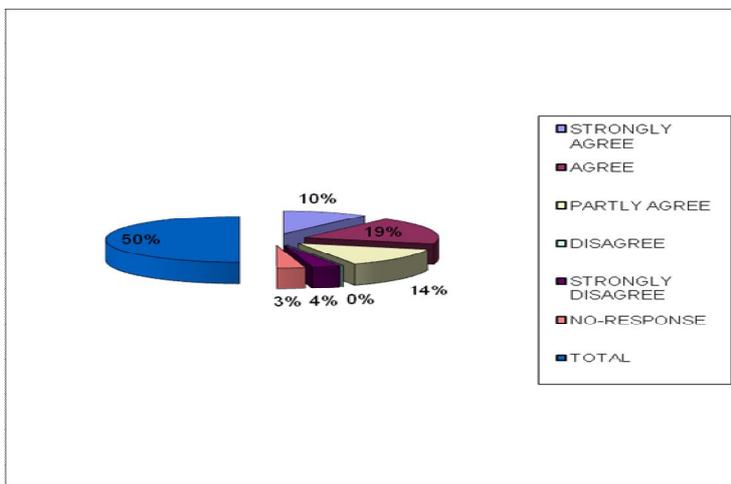


5. Is loyalty valued more than **anything** else in your company?

6. Training Programmes have taught **you** to take your job seriously and **to** perform.



7. Do you agree with the statement that **the** employees are highly satisfied **with** the pay packets?



8. Will you change your job for better emoluments?