

## ***Reduce the overhead cost in On-the-Job training***

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**Abstract** — *The purpose of this research was to identify the missing elements of the On-the-Job training program and to establish a program that covers the employee's need. Also, specified rules to identify the right instructor to teaching method such as Andragogy was introduced to provide a better understanding of how the adults learn, and their focus during the learning process. In a period of 4 weeks, the new employee was capable of learning all the basic skills and tasking to perform their jobs without any help. Certain criteria was evaluated by their supervisors to keep tracking of their performance, and defined any additional training required that aided to perform their job better. The tools were included from the use of all software and applications to fill out forms and submission process for these across the company. All feedbacks were collected to perform additional changes and met the department needs.*

**Key Terms** — *Hands-on, Short Instructions, Skills, Teaching Adults.*

### **INTRODUCTION**

The need of new personnel to perform certain tasks and availability of training to be provided to those individuals is affecting the production and effective execution of these persons when they first start their careers at any organization. The On-the-Job training plays a vital role in companies and agencies after the hiring process is completed; and the new personnel are intended to perform certain tasks, but their skills do not match what is required to perform their jobs. Creating a new training program will enhance their roles and become more effective, saving time, money and re-work across the organization.

The intention of this project is to provide clear guidance to the managers in how provide Hands-on or On-the-Job training to the recently hires. This guidance includes, but not limited to: select the right instructor with the defined qualities; get to know these new employees to establish a training plan to teach them, according to the department needs; establish a period of 4 weeks to instruct the new personnel with the new skills; and establish a evaluation period after this employee is release from training. If the employee requires more training time, this will be determine based on the employee's need to ensure they achieved the level of knowledge required to work on their own.

### **LITERATURE REVIEW**

#### **Education**

Andragogy is the science that of understanding and support based on theory and practice of educating adults. This definition has several theories of how adults learn, which includes:

- The adults learn what they want to learn.
- The adults will learn what they feel they need to learn.
- Adults respond to a need for better performance.
- Adults want realistic useful application for learning.
- Adults are motivated by their own factors [1].

On-the-Job is defined in most cases as a Technical training, were all the tools are presented and gives the trainee, the ability to manipulate objects, equipment, tools, data and/or resources in some way to achieve the training objectives. This type of training enables the employees to perform a wide range of tasks that involve from hands-on,

documents and paperwork, to customer service techniques. The Table 1 provides a structure of the training module organization at this level [2]. At a minimum, these modules have to be:

- Visual
- Via Print
- Aural
- Interactive
- Tactile
- Kinesthetically [1]

**Table 1**  
**Training Organization at a Technical Level**

Type of Training	First Whole	Part	Second Whole
Technical	-Purpose  -Overview of workflow  -Overview of operation	-Start-up  -Operation  -Shutdown  -Inspection  -Maintenance  -Adjustments or revisions	-Troubleshooting  -Decision making  -Practice  Integration of parts

The use of coherent text in the training will help low prior knowledge readers to understand the concept better, while visualize the concept with some visual pictures of the explanation if were available. It is possible to avoid the questions and explain in details all the text that is going to be show on training for better understanding. It is better to provide the opportunity to ask questions and discussions after the training is completed. Here are the rules of how should be write the instruction block as follows:

1. Write text considering that the reader is unfamiliar with the content.
2. Considerate the text includes guidance such as:
  - Organize sentences or diagrams in a form that preview or review the content
  - Define and provide examples of all unfamiliar terms discussed

- The use of explicit statements that require minimal inferences
  - Use of headers to signal paragraph topics
3. Avoid redundancy for either low and high prior knowledge readers, along with the effort of not invest too much time in writing lengthy texts.
  4. Avoid interruptions while reading in low skilled readers as this decreases their comprehension
  5. To improve comprehension in high skilled readers, questions can be included with their reading assignments

The possibility of not adding questions to low prior knowledge persons while they are reading could be considered [3].

### Training

When developing a training plan, it is vital to follows some steps that goes along with some questions regarding what need to be incorporated in the training plan. In general, during the execution of the new program:

- Immediate train modules need to be written first if the task/work that the trainee will be performing requires immediate knowledge from this training, if these are frequently perform in a daily basis.
- Safety-or quality-critical tasks that should by given initially or as soon as possible, before these employees start working on their areas.
- Difficult-to-learn task should be given earlier during the program, unless are tasks that are very infrequently performed.

Baselines need to be established prior the program initiation to collect and evaluate outcomes against the constants established earlier. The importance of this program is that will tells the trainers and trainees where they at, by when, and which route. Once the program is completed, trainer council, designated department representative or approving board needs to determine the follow on steps and make changes as needed as the training is tested [4].

These are the most common OJT modules and their cycles:

### **Skill-oriented Module for training delivery**

1. Trainer/trainee establish a shared mental model.
2. Trainer demonstrates skills to trainee.
3. Trainer coach trainees through the task while the trainee perform the task.
4. Trainee performs the task without coaching and receives feedbacks right after completed from trainer.
5. Trainer/trainee debrief.

### **Knowledge-oriented Module for training delivery**

1. Trainer/trainee establish a shared mental model
2. Trainer explains and shows if applicable, all topics and key elements related to the task
3. Trainer coach trainee while trainee explains and shows if applicable, all topics and key elements related to the task.
4. Trainee explains and shows if applicable, all topics and key elements related to the task without coaching, and receives feedbacks right after completed from trainer.
5. Trainer/trainee debrief

In order to see these steps happening in the desired way, it is very important to choose the right trainer as a speaker. This individual must possess some key characteristics that will support the learning at the desired level. Some of these characteristics are:

1. Is genuinely interested in training and has a positive attitude.
2. Has a good interpersonal skills and communication skills.
3. Is knowledgeable and experienced, or willing to become knowledgeable in the specific training modules being taught.
4. Is able to listen attentively.
5. Is patient and highly motivated.
6. Is respected by peers (is very respectful with others).
7. Is willing to follow On-the-Job trainer guidelines.
8. Shows desire of sharing past work experience or knowledge with others.

9. Is able to come up and organize a plan and solve problems.
10. Has good coaching skills and the ability to question others performance constructively.
11. Shows willingness of becoming a trainer for a full year or longer time.
12. Is able to keep ego out of the way.

The trainer council established must certify the trainer, the strategy to train, and determine the evaluation criteria after the training module is completed. After try out and evaluate the modules and cover sheets, modify them as needed and re-submit for approval. Ensure that the maintenance and evaluation plan is being setup to keep making updates and changes as needed to the program [4].

### **Time Management**

The acronym "HOT POPPER" was created to help the individual to remember some steps, which any trainer should use to train any individual, and proof their performance. This will determine how proficient is the individual on applying the instructions given during the training, and the amount of practice required to expose these individuals to any real live situation and experience. Hands-on training method has six steps to follow:

#### **HANDS-ON TRAINING (HOT):**

1. **P** - Prepare for training.
2. **O** - Open the session.
3. **P** - Present the subject.
4. **P** - Practice the skills.
5. **E** - Evaluate performance.
6. **R** - Review the subject.

This is the easy way to remember how to present the training and be consistent with the technique implementation. The trainer also needs incorporate as part of the plan, if apply:

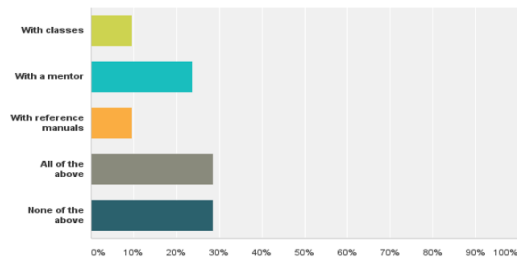
1. Job Overview
2. Equipment Familiarization
3. Task Training
4. Solo Performance [5]

## METHODOLOGY

To collect the data, a survey was conducted and answered via Social Medias to reach out young adults and adults with prior On-the-Job training experience. With this initiative, is expected to save money, improve up to 30% in productivity and time management. The training will be focused on need-to-know basis to address the questions and answers to the type of work and tasks specifically. The survey was 21 questions, where individuals will provide the time spent in the company and how would they like to have training at such place. After the data was collected, based on the reference books and surveys collected, the key factors for training will be identified enhance the new employee's skills while establishing a clear and effective communication between the employee and the trainer/mentor. The results from the survey were collected in data tables and graphs as shown in Figure 1 and 2.

**Q2: When you were hired, how did you get trained for this position?**

Answered: 21 Skipped: 0



**Figure 1**

### Example of question from Survey and graph

After the data was analyzed, a volunteer was selected to perform On-the-Job training, and actively perform the training for 4 weeks. After this period, the employee was evaluated to determine the skill level and if more training is required to clarify any doubts related to their regular tasks. If during this evaluation is determined that the employee is capable to work on their own, then the trainer will stay behind as a mentor to assist the employee at any time as needed.

**Q9: What training elements would you consider when training new employees?**

Answered: 21 Skipped: 0

Answer Choices	Responses
Hands-on	33.33% 7
Classroom Instructions	14.29% 3
On-their-Own Reading	4.76% 1
Assigned to a mentor as a follower	42.86% 9
Other (please specify)	4.76% 1
<b>Total</b>	<b>21</b>

**Figure 2**

### Example of question from Survey and Data Table

## RESULTS

All work environments are different. Not all the places will provide an enhanced training with all the tools you need to wrap up and get the individual ready to perform in a short period of time. But, key events can be identified and put out in form of a training to help the new employee to understand the position duties, main tasks, and how to process any document through the proper channels. All mainly used apps can also be explained to provide basic knowledge to start working, and avoid guessing and misunderstanding at the time of executing.

A survey was created to identify specifically how persons would like to be trained and the tools they would like to use to learn certain tasks.

The plan created content the following topics to train an engineer for a planning department:

- Introduction to the Engineering and Planning Department.
- Describe the basic responsibilities and tasks of an Engineer.
- Meet the different departments and their responsibilities.
- Discuss the main acronyms, forms and applications.
- Discuss systems involved in responsibilities.
- Discuss the existing policies for work transactions.
- Discuss the importance of review your work before submission.
- Discuss where to find reference material.
- Discuss main procedure for work submission.

- Discuss steps for work submission in worst-case scenarios.
- Discuss all questions related to material covered.

The plan designed was introduced the new employee, gaining the basic knowledge of all their tasks, and wrap up on their responsibilities in 4 weeks. Only 1 individual volunteered to have this training since he/she had recently started in the job. So, all the topics were discussed and coached using skill-oriented modules through all steps to train this individual.

The individual had the opportunity to see all the ups and downs of the position, and see their regular tasks and their processes. After the 4-weeks training, this employee was released to perform she/he tasks with supervision. The results were satisfactory since she/he proof to have the basic knowledge to work individually. A little bit of confusion came on where didn't knew where to find certain reference material and information, but the question was answer with no further action required right after. The elements and objectives of the training were all covered, and she/he had an outstanding performance.

## CONCLUSION

*The On-the-Job training* program designed was adequate and effective to the workplace that was designed for. All the topics covered were planned for a specific position's need. All tools required to perform the work were provided and the knowledge was shared according to their level of experience and difficulties. This employee proves that the training provided was effective, and the performance was very effective. She/he proves to be more effective and productive over a few more employees that started at the same time with the tested individual. A task that used to take 1 to 2 weeks to be completed, it took almost a week and the employee was able to explain the scope of work and some other details that were not expected.

In terms of performance, the employee was capable to understand the purpose of the work that

she/he was writing, where to find the material with no further help and figure out how to submit the paperwork through the appropriate channels without affecting the readiness of the department.

To resume, she/he was able to wrap up in almost 5 weeks. This 5<sup>th</sup> week was used to go over certain documents and process that are no regular tasks, and therefore, needed to be discussed prior to continue working. The intensity of the training was adequate to the level of knowledge of the individual and was superseded with additional training that provided the knowledge and understanding of the systems they were dealing with.

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