Course Project

Instructional Design and Technology

Lehigh University

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**Project Overview**

The purpose of this project is to demonstrate course concepts into a real-world task with appropriate sensitivity and rigor. For my final project, I will be designing instruction for the picking department of Generic Company. This model of instruction can be modified to be implemented in a variety of departments within the company, mainly in the warehouse environment. Also, this instruction should be able to be modified and used with many different companies and their job functions within the warehouse.

**Statement of Need**

This instructional design should help companies train new employees in the most efficient manner to improve their skills, abilities, and attitudes for the job they have been hired to do. These jobs pertain to distribution environments that include picking and shipping customer orders. My design should be able to be molded into other environments such as manufacturing with minor tweaks. I have personally experienced first-hand that many companies have poor or nearly nonexistent training programs for new hires.

**Target Group or Population**

The individuals using this instruction will be new hires of entry level positions in warehouses. The learner analysis will be given by the companies that will use this design. I do have some insight on which the learners will be based on previous experience. The learners tend to be younger, less than forty years old. Their educational background is varied, but a majority only have a high school diploma or G.E.D. Past experience in this field is mixed between first time and previous warehouse experience. I have noticed, and I myself have done this, that many workers will leave one warehouse to go to another one that pays more. This fact will be a crucial part of the motivation peace for this design.

**Delivery System**

Due to the fast paced nature of many warehouse environments, learning will be delivered mainly on the floor of the company. There will also be classroom instruction for areas such as safety, employee benefits, and introduction to the tools they will be using on a day-to-day basis. I will also be employing some ideas from Sebastian Thrun’s TED Talk (2012). He used frequent quizzes and shortened lesson plans to better accommodate how individuals learn and assess them.

In the classroom, there will only be one instructor teaching the learners. Once on the company floor for training, if the staffing allows it, training will be one-on-one. If not, small groups will be divided and instructed. Being able to see evaluate the learner’s as they are learning is important to their success down the road once they are done with their training.

**Performance Objectives**

These objectives used the CBC model, condition-behavior-criteria. “…defining learning outcomes is an important step in the curriculum development process because it makes the intensions of the course of study visible to the administrators, teachers, parents, and students…” (Gagne, 2005). This statement may be geared towards educational systems, but the importance is great for all areas of learning. Julie Dirksen put it well saying, “If you don’t know where you are and where your learners need to be, you can’t figure out how to get them there” (2012).

* Given various customer orders, employees will be able to pick at a rate of 35 lines/hour by their fourth week of employment at 100% accuracy.
* Given a test of 10 questions regarding the simple math of factors of three, employee will answer all the questions in 90 seconds with 80% or greater accuracy.
* Given a verbal question, all employees will be able to orally state the company’s mission statement and how it relates to providing the best services/product to the customer.
* Given situations where different personal protection equipment (PPE) is required to safely perform tasks, employee chooses to wear the appropriate PPE for the task they are performing.

**Motivation**

For my project, the learning design is in a warehouse environment where the employees are often very disconnected from the consumers they serve. I also realized that in order to get their job done, the employees must show up to work. After viewing Dan Pink’s talk at TED in 2009, I realized that my design couldn’t use any of his ideas on motivation. The task my design is intended to teach is in fact a menial one, and monetary incentives should be able to motivate the employees. I believe that these simple “carrot on a stick” rewards can be very motivating for this type of task and employees. I also believe that it will deter employees who believe in the company and want to grow in it. That is why for my design I would like to incorporate some other motivators to help these employees rise to the occasion so they may continue their journey. Some of these would include:

* Relaying information about sales and new products
* Proper techniques for the job that will benefit the consumer
* Supporting positive attitudes and performance

In addition, Julie Dirksen mentioned “designing environments that make it easier for those learners to succeed” (2012). I understand that this can be expensive and even challenging in a warehouse, but it would be beneficial to the employee’s motivation and ultimately the well-being of the company. When I think of a place I want to go to work, there are a few things I imagine the workplace environment to possess or look like. These include:

* Clean facilities, inside and out
* Cheerful employees
* Activities both inside and outside of work to take some stress of an “all work and no play” that I have seen in many of my past jobs

John Keller said it best stating, “Motivation is the neglected “heart” of instructional design” (1983). Without motivation, no one is really going to learn. It is even harder when your students are not intrinsically motivated. I believe that for a warehouse environment, the previously stated ideas for motivation could be just the key to get employees motivated to learn their job, and obtain a positive attitude on their contribution to the company and the people they serve.

**Assessment and Branching**

As noted in the delivery system section, breaking up the learner’s into small groups or ideally to one-on-one instruction will allow for the instructor to evaluate where each learner is. It will be easier for the instructor to notice if a learner is hung up on a certain area. In this case the instructor can immediately address the issue to get the learner back on track and continue on their journey to learning the duties of their job.

**Formative and Summative Assessment**

The assessment for the student’s learning will mostly be formative. As they move through their training, the instructor will be evaluating how they are doing. If the instructor notices a student struggling on an area or task, they will give them more attention in that area until they are ready to progress to the next task. The summative assessment of the learners will come in the form of work task statistics. The learners will have to maintain certain productivity (lines/minute, orders/hour, etc…) to show they still understand their job tasks. If these numbers drop, they can be pulled aside to understand why they are not performing well. If more training is needed, it will be given. Other factors could be causing lack of performance in which other measures will need to be taken.

The assessment of the instructional design will be mainly summative. After the training, students will be given a questionnaire about the training they had just received. Their input will help make any adjustments to the learning instruction. Another form of assessment will be to monitor the success or failure of new hires after training. If the training is effective, then the number of employees performing well should outweigh the number who are underperforming.

Formative assessment would come from feedback from the students during the training. I do not believe there needs to be specific assessments but rather instructors understanding when something might need changed if a student brings something up.

**Task Analysis and Flowcharts**

The following are a couple examples of task analysis that would be involved in the design of this instruction.

[Learning-Task Analysis](http://cmapspublic3.ihmc.us/rid=1LHQWC6ZY-1G1XL8M-ZVL/Learning-Task%20Analysis.cmap)

[Information-Processing Analysis](http://cmapspublic3.ihmc.us/rid=1LHQWC67J-HCGHMC-ZVG/Information-Processing%20Analysis.cmap)

**References**

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Pink, D. (2009). *The Puzzle of Motivation.* Video. Retrieved March 20, 2013, from http://www.ted.com/talks/dan\_pink\_on\_motivation.html