

Warehousing and Distribution Center Operations Project

**Project-Based Learning in Cooperation with,
FAMILY DOLLAR STORES, INC.**

STUDENT GUIDE

**MID-SOUTH COMMUNITY COLLEGE
WEST MEMPHIS, AR**

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Warehousing and Distribution Center Operations Project: Student Guide

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Warehousing and Distribution Center Operations Project Overview

About this Project

Welcome to the Warehousing and Distribution Center Operations project. This project lets you explore career opportunities in Warehousing and Distribution Center Operations for motor vehicles. It also lets you solve some typical problems people face in this career area.

Family Dollar Stores, Inc. is the site of this project. You will work on a typical problem addressing employee retention.

You will visit the Family Dollar Stores, Inc. Distribution Center in West Memphis, Arkansas. You also will learn about the many career opportunities in Warehousing and Distribution Center Operations at Family Dollar Stores, Inc. and other similar companies in the transportation, distribution and logistics sector career cluster.

The project also will allow you to practice your academic and workplace skills such as teamwork and learn how to solve problems in the business world.

Good luck!

Project Goals

The major goals of the project are to:

- Provide students with an orientation to career opportunities in Warehousing and Distribution Center Operations within the transportation, distribution and logistics career cluster.
- Provide students with the necessary career exploration experiences to enable them to decide whether they wish to explore these career opportunities further.
- Provide students with an orientation into how these careers relate to all aspects of the transportation, distribution and logistics industry.
- Demonstrate the application and integration of academic subjects as well as problem solving, teamwork, computer, and learning skills in real-world workplace applications.

More specific learning objectives are presented at the beginning of each learning module.

Project Outline

The Warehousing and Distribution Center Operations project has seven major sections or modules. These modules are:

- Module 1 Overview of Warehousing and Distribution Center Operations and Develop the Family Dollar Stores, Inc. Problem Statement
- Module 2 Site Tour
- Module 3 Project Leadership and Team Work
- Module 4 Understanding Distribution Center Operations at Family Dollar Stores, Inc.
- Module 5 Writing Business Reports
- Module 6 Making Business Presentations
- Module 7 Company Presentation and Discussion

Each module provides you with knowledge and skills you will need to solve the problem. Each module contains the following:

- **Objectives:** Each module begins with a set of student learning objectives. These objectives define what you should know and be able to do after completing the module. Your instructor will work with you to assess your knowledge and skills.
- **Readings:** Each module starts with short introductory readings that your instructor will review and discuss with you. These readings are designed to provide the basis for group discussion and problem-solving activities.
- **Activities:** Each module provides group activities that are designed to help you learn and apply concepts and skills in solving problems.

After your team completes the project, company representatives and your instructor will work with you and your fellow students to evaluate your proposed solution.

Module 1

**Overview of Warehousing &
Distribution Center
Operations & Develop the
Family Dollar Stores, Inc.
Problem Statement**

Module 1

Overview of Warehousing and Distribution Center Operations and Develop a Problem Statement for the Family Dollar Stores, Inc. Project

Objectives

After completing this activity, you will be able to:

- Define the role of warehousing and distribution in the economy.
- Describe the types of career opportunities in warehousing and distribution.
- Explain the importance of operating the distribution center at the highest possible level of through-put of material in providing the highest level of quality and overall performance including cost factors.
- Restate and discuss the Family Dollar Stores, Inc. problem. Get the Family Dollar Stores, Inc. Mentor to clarify issues, if necessary, and to validate the final form of the Problem Statement as an accurate statement of the problem to be solved.
- Develop a worksheet for analyzing the problem, a list of things you want to observe, and questions to ask personnel at Family Dollar Stores, Inc. during the site tours. You want to have as much information as possible to develop a solution to the problem.

Defining Warehousing and Distribution

Large companies typically manufacture different but related items at a variety of locations, seldom producing their complete line at a single plant. Through the operation of storage locations called, warehouses or distribution centers, companies are able to offer their customers a complete selection of all their products, efficiently shipping whole mixed orders at once, rather than piecemeal from each factory. Warehouses are used primarily to store and ship products in the same condition they arrive from the manufacturing plants. Distribution centers tend to store a much greater variety of products, often in different forms of packaging and configuration. They also perform additional services such as final assembly, building of sets of appliances or parts, attaching color panels, loading software, and processing returned items.

Accurate market forecasting is essential to the successful functioning of a distribution center, where the flow of products must be continuous in order that space not be wasted on unused or obsolete items. Such storage is dynamic--that is, the movement of products is fairly constant, and accessibility of items is essential. The growing use of information technology in the Distribution center has made this dynamic process more workable and reliable. This, in turn, has resulted in manufacturing being delayed as much as possible to reduce the span of time between the production of goods and their delivery to the final user. Special planning and control techniques, such as Just-In-Time Manufacturing and Effective Consumer Response for product resellers, would be impossible without the speed and accuracy of data made possible by the wide spread use of Information Technology in the Logistics industry.

Many storage facilities are tailored to the needs of accessibility, security, and climate. Refrigerated space must be carefully designed to be efficient and cost effective. Heated areas must also be efficiently planned and operated. In all storage facilities, fireproof materials such as concrete and steel are preferable. These materials lend themselves readily to prefabrication and have good insulating and acoustic properties. The effectiveness of the fire protection also reduces the cost of insuring storage facilities, a major expense. Fire codes for storage facilities are also very stringent and failure to comply could result in major fines and even the complete shutdown of operations.

In large warehousing and distribution facilities, flow through the facility is the dynamic aspect of storage. These type of facilities are largely automated processes, designed to facilitate stock rotation by means of a combination of equipment such as stacker cranes built into the storage area, remote-controlled forklift trucks for vertical and horizontal movement of goods, and gravity flow racks, in which pallets are automatically replaced in a line. Many warehouses are computer-controlled from dispatching towers. These type facilities represent around 12-15% of the total storage facilities in use around the world. The vast majority of Warehousing and Distribution facilities use more traditional methods of storage and materials handling but are still greatly impacted by the availability and use of Information Technology to improve record keeping, control flow through the warehouse, and provide electronic identification of stored materials and their location in the facility. The introduction of computers and bar codes are the two most important technological changes in this industry in the past 50 years.

Warehouse and distribution center management involves management of the locations where the firm's inventories are stored. Warehouses and Distribution Centers are similar but have different emphasis. A Warehouse is used for the storage of goods. Canned foods, for example, are canned during one month of the year at the end of a growing season and then are shipped out in a fairly even flow for the next 11 months. Or, in a reversed situation, Christmas decorations are made throughout the year, but their sales are concentrated in a four- to six-week period.

Distribution Centers emphasize a faster turnover (or throughput) of goods. Chain grocery stores use distribution centers for receiving railcars and trucks filled with pallet loads of individual grocery products. Inside the warehouse, all the products are placed in individual stacks. Then orders are "picked" from these individual stacks for each retail store. They are assembled, loaded aboard pallets, placed aboard trucks, and delivered to the stores.

The ready availability of historical information about the use and purchasing of materials, combined with the computing capabilities of the Information Technology field and the development of more accurate forecasting techniques to predict future use of products and materials is leading to greatly reduced use of warehousing and a much greater emphasis on the use of Distribution Centers and direct shipment from manufacturing point to place of use or sale. Combined with the myriad choices of transportation costs and service levels, the reduction of standing inventories is a major objective of the Logistics Industry. The determination to achieve this reduction is represented by the combination of planning, purchasing, product design, logistics planning and operations, transportation planning and implementation, customer service planning and management, and life cycle planning into a single effort, called Supply Chain Management. This will be the key area of effort for the beginning of the 21st century.

Activity

Preparation: On the day before you plan to discuss Warehousing and Distribution, each student should pick one product to research. Do your own research using personal knowledge or information from the Web, library, or wherever source you choose to determine what happens to that product from the day it is manufactured until it is sold. Be prepared to discuss your results in class.

In class, discuss the following with your group:

1. In general, how do products that you buy in stores get to the store?
2. How do raw materials get to the manufacturer.
3. How do the raw materials eventually become a part of the finished products or merchandise.
4. How do the finished goods get to your store? How do they get to the consumer?
5. What role does Warehousing and Distribution play in the delivery of goods and materials?
6. Draw a flow diagram of the product you selected based on your discussions and your investigation, using the flow chart in Figure 1.1 as a model.

Highest Levels of Service at Lowest Cost of Distribution

Efficient distribution is very important to companies because it is a major factor in keeping both retail and wholesale customers satisfied and in controlling costs.

Customer Service and Satisfaction One key to customer satisfaction is having the right product available to customers when they want to buy it. Customers get very frustrated when they go to a store to buy a product and they are told that it is out of stock and will not be available until later in the week. Some customers may be satisfied with an alternative product, if one is available, but many are not. High Levels of Service exist when products are available in the stores when customers want the products. High Levels of Service are often measured by the percentage of products normally carried by a store that are in stock during a buying period. Recent consumer laws impose a penalty on stores in many cases when items are advertised on sale and sufficient quantities are not available to meet demand.

Costs of Distribution In order to realize a profit, retail and wholesale companies must provide high Levels of Service at a reasonable cost of distribution. High levels of inventory were a traditional way of insuring that enough product was available to satisfy all possible demand but this practice can be very

expensive. Companies can also use the most expensive types of transportation such as air transport and special services like overnight delivery to get more inventory when it is in danger of running out but this practice increases the cost of product and should be included in the price of the product. Customers want products available but will buy at the lowest price generally. Retailers and wholesalers must keep distribution costs down to levels at or below their competitors or risk losing the business.

Managing Service and Cost Retail and wholesale companies are always trying to manage the tradeoff between high levels of services and low costs of distribution. The goal is to find a way to get the highest levels of service and the lowest cost of distribution in comparison to your major competitors.

Activity

Discuss the following with your groups:

1. Why is it important for Warehousing and Distribution companies to maintain high levels of service?
2. Why is it important for warehousing and distribution companies to keep distribution costs low? What would happen if their customers (i.e. retail stores) had to raise prices to pay for higher distribution costs?
3. Why is a 100% service level on product availability a good goal? Do you think it will ever be achieved?

What are the Career Opportunities?

What are the career opportunities for people who are involved in Warehousing and Distribution?

Let's explore the major functions in warehousing and distribution and some common job titles for people who do this work.

Warehouse/Distribution Operations Managers

Planning, organizing, and controlling physical distribution to and from warehouses and distribution centers to stores and consumers. Common jobs: Logistics Manager, Warehouse/Distribution Manager, Logistics Engineer, Logistics or Material Planner.

Facility Engineering/Maintenance

Maintaining and repairing warehouse facilities, equipment and machinery. Common jobs: Industrial Electrician, Maintenance Mechanic, and Facility Engineer.

Traffic, Shipping and Receiving Clerks

Planning, scheduling, and monitoring in-bound and out-bound shipments of products and merchandise. Common jobs: Transportation Planners, Dispatchers, and Traffic Managers, Dock Supervisors, Terminal Managers, O.S.&D. Clerks.

Motor Vehicle Operators

Movement of freight in yard, locally, and long distance. Common jobs: Commercial Truck Drivers., Vehicle Mechanics, Driver Trainers, Safety Managers, Risk Management Technicians.

Packaging/Packing/Materials Handling and Moving Jobs

Loading, unloading and movement of products at distribution centers, warehouse, and truck docks. Common jobs: Material Handler, Forklift Driver, Dock Worker., inventory control Clerks, Order Pickers and packers, Receiving Clerks, Shipping Clerks.

Activity

With your team do the following:

- Library and Internet Research on Warehousing and Distribution Center careers. Identify 3 jobs and related information, including salary, and be prepared to discuss in the next class period.
- The industry sponsor has been asked to give us a problem to work on and has provided a draft. We must now restate this problem as a task that we have been asked to perform. This revised Problem Statement will be the beginning point for our analysis and establish our role in the project.

Analyzing a Warehousing and Distribution Center Problem

Your instructor will hand out a short description of the Family Dollar Stores, Inc. Warehousing and Distribution Center Problem. You should analyze the problem and develop questions for your site tour and write these questions in your course notebook.

Tips for Analyzing Problem Statements

Here are some tips in analyzing the problem.

- Read the problem statement very carefully. Read the statement sentence by sentence.
- Don't assume anything. Make sure that you can back up any assumption or conclusion about the problem by what is stated in writing.
- Don't be concerned if you do not have all the information you need. You can get more information at the site tour and by asking Family Dollar Stores, Inc. personnel and your instructor for the information you think you need to solve the problem.
- Don't be concerned that you do not know how to develop a work flow study. Your instructor can help you learn how to develop this type of instrument.
- Don't be afraid to ask questions and tell people what you need to know. Good problem-solvers are people who are not afraid to learn new things and ask for assistance. If something does not appear to be normal or efficient, make notes about when and where you observed the event(s) and review it with your Family Dollar Stores, Inc. mentor and your instructor.

Determining What You Know and What you Don't Know

Expert problem-solvers start their analysis of a problem by writing down what they already know and what they need to know to solve the problem. Once they identify what they don't know, they then develop questions and seek out people who can answer their questions and help them solve the problem.

As shown in Figure 1.2, one way to do this is to make a list using a two-column sheet of paper with one column for what you know and one column for what you don't know. For example, under the column for what you know, you could write down, "The report is due in at the end of the semester."

Activity

With your team, develop your questions for the site tour by doing the following:

1. Read the problem statement and make a list of what you know and what you don't know. Use Figure 1.2 to write down your team's list.
2. Look at your list of what you don't know and develop questions for Family Dollar Stores, Inc. that you can ask during your site tours. Enter these questions in your course notebook.

Figure 1.2
Problem Analysis Work Sheet

What I Know	What I Don't Know (Need to Ask)

Module 2

Site Tour

Module 2

Site Tour

Objective

After completing this activity, you will be able to:

- Describe how the picking, sorting, and truck loading positions function and how they fit into the entire organization at Family Dollar Stores, Inc.
- How the sortation process operates and where the potential for improved productivity can probably be found.
- Identify and describe major job opportunities at Family Dollar Stores, Inc.
- Ask questions and take notes on answers for solving the problem.
- Identify areas of potential problems and develop a simple survey to observe what goes on during a specific time period. Ask your Family Dollar Stores, Inc. mentor to identify the best times to observe the target operation.

Preparing for the Site Visit

You need to make sure that you get all or most of your questions answered at the site visit. You also need to make sure you use the site visit to understand how the order picking, sortation, and truck loading operations impact the productivity at Family Dollar Stores, Inc. Here are some tips to get the most out of your site visit.

Understanding How the Pick, Sort, and Truck Loading Operations Fits into the Process Flow Through The Distribution Center.

- Read the tour topics and helpful questions in your Student Log Book.
- Write down some other questions that will give you a full understanding of the whole process from start to finish.
- When you are at Family Dollar Stores, Inc., try to visualize how the different operations from picking to shipping are connected and what processes support the smooth and efficient flow of materials.

Preparing to Ask Your Questions

- Practice asking your questions with other students. Be sure to state your question slowly and clearly and be prepared to restate your question if people do not understand what you are asking?
- Make sure you listen carefully to all questions and answers. If you don't understand the answer, ask people to say it again or repeat what you don't understand.
- Take notes on the answers. Don't try to write down everything that is said. Write down the major concept or idea that you can refer to later.

Activity

With your group, do the following:

1. Ask your questions to your instructor and other students and ask them to tell you whether they understand your question and how you could say it better when you get to Family Dollar Stores, Inc.

After the Site Visit

After the site visit, you will have more information to solve your problem. But, you will quickly forget this new information if you don't review your notes and write down what you know. Here are some suggested steps to take.

As soon as possible after leaving Family Dollar Stores, Inc. write out your notes in more detail in your course notebook or on a separate sheet of paper. Make sure you write clearly so you can read your own notes later!

Step 1: Revise your work sheet or start a new work sheet. Identify what you know and don't know after the tour.

Step 2: Make a list of questions that you need to answer and write down what you need to do to get these questions answered.

Step 3: Meet with your team to compile a list of what you know and what you don't know and write out all of your questions and strategies for finding answers to your questions.

Remember, the longer you wait to write out your notes and revise your work sheet, the more you will forget.

Activity

With your team, do the following:

1. Revise your work sheet and write down your revised list of what you know and what you don't know.
2. Make a list of questions you need to answer and what you need to do to get your questions answered. Set some priorities and determine what you need to get answered first (See Figure 2.1).

Figure 2.1
Remaining Questions and Action Plan

Remaining Questions (What I Need to Know)	Action Plan (How Will I Get My Questions Answered?)

Module 3

Project Leadership and Teamwork

Module 3

Project Leadership and Teamwork

Objective

When you complete this activity, you will be able to:

- Explain the importance of leadership and teamwork in projects.
- Describe the characteristics of effective teams.
- Understand team rights and responsibilities.
- Evaluate leadership and teamwork on a project.

Why are Leadership and Teamwork Important?

Business is a team sport and everyone has to be a leader!

Companies can no longer afford to rely solely on upper managers to plan and make decisions and take responsibility for business goals and success. Doing your job well is not enough. Everyone needs to pull together and make a contribution. They must make sure that they are working effectively with others to meet the needs of customers and reach business goals.

To be successful in today's business world, you must develop and practice your leadership and teamwork skills.

Activity

With your team discuss the following:

1. Why have teams become so popular?
2. What's the difference between groups and teams?
3. How useful are problem-solving teams?
4. What are self-managed teams?

Characteristics of Effective Teams

Everyone needs to assume the responsibility for creating and maintaining effective teams. What makes an effective team?

Here are some characteristics that are common to most effective teams:

Clear Goals and Plans: Effective teams have clearly defined goals and objectives and clearly defined measures or indicators for success. They also have clearly defined work plans that are designed to reach these goals.

Commitment to Goals and Success: Effective teams have full commitment from all team members to the goals and plans of the team and a full commitment to success. They all want to meet or

exceed the expectations of customers.

Team Responsibilities and Contributions: Team leaders and members clearly define roles and responsibilities and make sure that everyone is participating fully and collaboratively and that all members are contributing their fair share of the work.

Team Leadership and Decision-making: Team leaders and members demonstrate democratic and collaborative leadership. All members participate in decision-making and the group seeks consensus on all decisions.

Interpersonal Relations: Team members treat each other with respect and value and recognize the contributions of all team members. Team members provide constructive praise and criticism and enjoy working together. Team members channel and control emotional reactions and resolve conflicts.

Resource Management: Team members make sure that they are effectively using all resources to complete the project especially the time of team members.

Team Members: Team members conduct effective meetings. They clearly define the purpose for each meeting and have well-defined agendas. They promote the full participation of all members and allow all members to express their views. All members keep to the point and do not argue or interrupt. Team leaders and members summarize the results of the meeting and next steps for the team.

Activity

Follow the instructor's directions for the "Team Bonding" exercise.

Discuss the following:

- Team rights and responsibilities
- Objectives and requirements for team presentation assignments.

Evaluating Teams and Your Leadership and Teamwork Skills

Effective leaders and teams continuously evaluate and improve their performance.

Here are some criteria to judge the performance of your team and your own leadership and teamwork skills.

Team Performance

Clear Goals and Plans:

- Does your team establish clear goals and objectives that everyone understands fully?
- Does your team establish clearly defined work plans to reach these goals?

Commitment to Goals and Success:

- Are all team members fully committed to the goals and work plans?
- Are all team members committed to making the team successful?

Team Responsibilities and Contributions:

- Do your team leaders and members clearly define roles and responsibilities?
- Does everyone participate fully and collaboratively?
- Does everyone contribute his/her fair share of the work?

Team Leadership and Decision-making:

- Do team leaders and members demonstrate democratic and collaborative leadership?
- Do all members participate fully in decision-making?
- Do team leaders and members seek consensus on all decisions?

Interpersonal Relations:

- Do team leaders and members treat each other with respect?
- Do team leaders and members value and recognize the contributions of all team members?
- Do team leaders and members provide constructive praise and criticism?
- Do team leaders and members genuinely enjoy working together?
- Do team leaders and members channel and control emotional reactions and effectively control anger?

- Do team leaders and members effectively resolve conflicts?

Resource Management:

- Do team members effectively use all resources to complete the project?
- Do team leaders and members effectively manage the time of team members?

Team Meetings:

- Do team leaders and members define the purpose and agenda for each meeting?
- Do team leaders and members provide the opportunity for all members to fully participate in meetings?
- Do team leaders encourage all members to fully express their views in meetings?
- Do all team members fully participate and express their views?
- Are the viewpoints of all members considered fully in meetings?
- Do team leaders and members maintain focus and keep to the point in their conversations?
- Do team leaders and members fully listen to others and not interrupt others?
- Do team leaders and members summarize the results and next steps before the meeting is adjourned?

Your Leadership and Teamwork Skills

- Do you seek consensus on your team's goals and work plans to reach these goals?
- Do you communicate and demonstrate full commitment to the goals and work plans and the success of the team?
- Do you seek and respect consensus on roles and responsibilities?
- Do you make a full commitment to your responsibilities?
- Do you participate fully and collaboratively?
- Do you contribute your fair share of the work?
- Do you promote and support the full participation of all

members in decision-making?

- Do you seek and promote consensus on all decisions?
- Do you treat team members with respect?
- Do you value and recognize the contributions of all team members?
- Do you provide constructive praise and criticism?
- Do you genuinely enjoy working with other team members and demonstrate this attitude?
- Do you channel and control emotional reactions and effectively control anger?
- Do you effectively resolve conflicts?
- Do you effectively use all resources?
- Do you effectively manage your own time and effectively use the time of other team members?
- Do you ensure that all meetings have a clear purpose and agenda?
- Do you ensure that all team members fully participate in meetings?
- Do you encourage all members to fully express their views in meetings?
- Do you fully participate and express your views?
- Do you ensure that the viewpoints of all members are considered fully in meetings?
- Do you maintain focus and keep to the point in their conversations?
- Do you fully listen to others and not interrupt?
- Do you ensure that team leaders and members summarize the results and next steps before the meeting is adjourned?

Activity

With your team:

1. Review the characteristics of effective teams and provide examples of how team members could demonstrate these characteristics in completing the project.
2. After completing the project, use the criteria for effective teams and leadership and teamwork skills to evaluate your performance and suggest ways to improve.

Criteria for Evaluating Teamwork

Your individual performance on this project will be evaluated by fellow team members, the entire class and by the instructor.

Activity

Your instructor will discuss the following with the class:

1. Criteria for evaluating team performance.
2. Peer evaluation of team performance.
3. Instructor review of individual and team performance.
4. The “Industry Sponsor Evaluation” Process.

Module 4

Understanding Distribution Center Operations at Family Dollar Stores, Inc.

Module 4

Understanding Distribution Center Operations

Objective

By the end of this discussion you will be able to:

1. Define and apply Distribution Center terminology and operating objectives.
2. Understand what a Distribution Center does, particularly in a retail or resale environment.
3. Be able to discuss the major functions of a distribution center, as they relate to the Family Dollar Stores, Inc. operation in West Memphis, AR.
4. Learn the way the key function affect each other and which functions directly effect the through-put in a distribution center.
5. Assist management in evaluating options for improving throughput in the Family Dollar Stores, Inc. facility.
6. Provide a feedback on the observed impact of the options proposed by Family Dollar Stores, Inc. management.
7. Finally, we will brainstorm options based on what we have learned and make a recommendation(s) for improving the flow-through at the Family Dollar Stores, Inc. facility.

Title

Understanding Distribution Center Operations at Family Dollar Stores, Inc

As discussed earlier, the principal difference between warehouses and distribution centers is the speed with which goods pass through them. A distribution center is a very short term stopping over point for goods traveling from the manufacturer to the final consumer. In many cases that is accomplished through a reseller of finished goods, sometimes called a distributor. When the distributor is part of a retail sales entity, such as a Wal-Mart, Target, or Family Dollar Stores, Inc., the distribution center serves as a facilitator to organize loads of mixed goods from numerous vendors and move them to the retail selling location.

In general, all Warehouses and Distribution Centers perform the following general functions:

Receive goods from the supplier or our own plants. They verify that an order for the material had been placed, that the material shipped was the one ordered, that the quantity received does not exceed the quantity ordered, and verifies the

exact amount received, and that it is received in good condition. There are other functions but these are the main ones.

Put the goods received away in a storage location where they can be recovered when needed. Inform the record keeping system of the material received, from whom, and what quantities were put away at what locations in the warehouse. These two actions constitute the Receiving Process. Once the goods are in a location, they remain there until someone places an order against them.

Processing an order for a particular quantity of materials stored in one or more locations in a warehouse begins the Shipping Process. The Order Process that precede Shipping generally follows at least two steps: Order Entry and Order Picking or Fulfillment. Order Entry is the process of taking a request from a customer and placing a demand for a certain amount of product or products to be taken from storage, prepared properly, and shipped to another location.

The last step is the Packing and Shipping of an order. This can be as simple as weighing it and passing through a scanner to designate it's movement on a specific carrier to sorting it to a specific area, preparing and affixing carrier paperwork, or accumulating it to move in bulk with many other items to a specific destination, such as a retail store in the Family Dollar Store, Inc. case. Whatever the scenario, the objective is to move the goods to the person or business that orders it. The Shipping process also includes the accounting processes necessary to remove the items shipped from the Warehouse or distribution center inventory and charge the cost of those goods to the entity to whom they have been shipped.

The concepts and ideas that are presented in this module will be used to determine the process flow that is necessary to support the throughput plan established by Family Dollar Stores, Inc. to meet the replenishment requirements of the stores supported by this facility and what steps might be taken to improve that throughput.

Warehouse and Distribution Operations

Read the text: A Practical Guide to Transportation and Logistics, by Michael B. Stroh, Second Edition:
Chapter 3 : "Warehousing"

Activity

After completing the readings, be able to discuss the following with the class:

1. Identify the type of operation that best describes the Family Dollar Stores, Inc. operation.
2. Identify the principal functions performed by the Family Dollar Stores, Inc. operations.
3. Identify and describe at least 3 pick/sort operations carried out by this facility.
4. Provide a working definition for the term “through-put” and assess at least three possible factors affecting “through-put” in this facility.
5. Understand why Family Dollar Stores, Inc. feels it can increase “through-put” by processing more items through the “flow-through” area .
5. Brainstorm with your group potential improvements that you feel may be appropriate .to increase the number of items in flow-through lanes.

Activity

Develop a survey tool to collect flow data and another to collect impressions from the personnel in the warehouse on potential sources of “bottlenecks” and opportunities to increase “flow through” lane availability.

Activity

Based on your readings and discussions, discuss the following with the class:

1. What are the functions in the warehouse affecting the availability of Flow through lanes? What factors are affecting the current “throughput” rates? How many would be eliminated by increased flow through?
2. What factors could improve “through-put “ without changing “flow through” capability? Why?
3. Do we know what it would take to make the gains not involved with “flow through” happen?
4. Have we seen opportunities to improve the “flow through lane” usage? How?
5. What will it take to achieve the “through-put” improvements possible without adding “flow through” percentage? What needs to be done to improve the number of “flow through” lanes or slots?
6. Brainstorm how the various improvements could be accomplished and at what investment in resources. Try to prioritize.

**Distribution Center
Operational
Processes**

Read text: Reinventing the Warehouse, World Class Logistics,
by Roy L. Harmon.

Chapter 4: “Warehouse Operation, *Key to Success*”.

Chapter 5: “Future Vision, *Warehouse and Logistics
Systems*”.

Activity

After completing the readings, be prepared to discuss the following with the class:

1. What are the forces of change? Do any apply to our project?
2. How does technology affect the flow of materials through the Family Dollar Stores, Inc. facility?
3. Identify at least 3 special technology applications you observed in the Family Dollar Stores, Inc. facility. How did they work? What did they add to the “through-put” goals of this facility?
4. What can be done to change the present operation using existing technology?

Brainstorm the needed changes at Family Dollar Stores, Inc. and make recommendations in the form of operational changes you would recommend.

Activity

Read text: Reinventing the Warehouse, World Class
Distribution Logistics, by Roy I. Harmon.

Chapter 6: “Warehouse and Logistics Systems, *Making It Work*”.

How much of the activity at the Family Dollar Stores, Inc. Distribution Center is already applying these ideas? Where might it be changed or enhanced to meet the objectives of the Problem Statement. Are there systems not currently in use that might help to implement your proposed solution?

Module 5

Writing Business Reports

Module 5

Writing Business Reports

Objective

When you finish this activity, you will be able to:

- Develop an outline of a business report.
- Write a business report.
- Evaluate the quality of a business report.

Developing and Evaluating Business Reports

Your business report should clearly and effectively communicate to your audience the purpose, methods, and results of your project.

In developing and evaluating your business report, you should focus on three issues:

- Purpose and content
- Organization and structure
- Communication clarity and accuracy

Information in Warehousing and Distribution Center Operations

In your groups:

- Review the observations and data findings
- Review throughput issues provided with problem statement.
- Identify possible impact of each and potential solutions
- Discuss the best ways to visually present your information – charts, tables, spreadsheets, etc.

Purpose and Content

The first step in developing or evaluating your business report is to make sure that you have clearly defined the purpose of the report and have addressed the needs and requirements of your audience.

You should start by developing a clear statement of the purpose of the report and a listing of the major topics and types of information that must be included.

Activity

With your team:

1. Develop a clear and concise statement of the purpose of the report.
2. Develop a list of the major topics and types of information that must be included to meet the requirement of the customer.

Organization and Structure

The second step is to make sure that you have organized your report in the most effective way. In general, reports should have four major parts:

- Introduction to the Report – The introduction should state the purpose of the report and should summarize what is described in the report.
- Body of the Report – The body of the report should contain the major sections that address all major issues and summarize all required information, which may include graphs, charts, tables, and figures.
- Summary of the Report – The summary of the report should summarize the body of the report and major conclusions and recommendations.
- Appendix Materials – The report may contain appendix materials that support or provide background information for major sections in the body of the report.

You should start by developing an outline of your report that shows the content and sequencing of each major section of your report. This outline should contain titles for each section and a list of bulleted statements that summarize the purpose and content. It should also list any graphs, charts, tables and figures.

As you are developing your outline, you should ask:

- Do the report sections organize information logically? Does the information under each section belong there?
- Do the report sections contain all of the necessary information? Do the sections contain information that is not necessary?
- Are the report sections sequenced in the most effective order?

- Do the section titles clearly communicate the purpose and content of the sections?

Activity

With your team,

1. Develop a draft outline of your report.
2. Critique and revise your outline.

Communication Clarity and Accuracy

The next step is to write and edit your report. In writing and editing your report, you should make sure that you are communicating clearly and are presenting accurate information.

Remember, business reports should be short and to the point. They should communicate information effectively and efficiently. Here are some tips:

- Write your report using short sentences and paragraphs.
- Use supporting charts, graphs, tables, and figures to better convey your information whenever possible.
- Use consistent report formats for easy reading.
- Make sure your report does not contain spelling or grammatical errors.
- Make sure your report does not contain inaccurate information or math errors.

Activity

With your group, do the following:

1. Write your first draft of each section including any graphs, tables, and figures.
2. Evaluate the clarity and accuracy of your first draft using the five tips and develop a second draft.

Evaluating your Draft Report

The final step in developing your business report is to conduct a final review and editing of your report before submitting it to your customer. This review should make sure that you have addressed the following criteria:

Purpose and Content

- Do you clearly communicate the purpose of the report?
- Does the report contain all of the information needed to meet the requirement of the customer?

Organization and Structure

- Does the report contain an introduction that summarizes the purpose and contents of the report?
- Is the body of the report divided into sections that logically group related information?
- Does each section contain all of the necessary information?
- Does any section contain information that is not necessary?
- Are the sections properly sequenced?
- Do the section titles clearly communicate the purpose and content of each section?
- Does the report have a final section that summarizes the conclusions and recommendations of the project?

Communication Clarity and Accuracy

- Does the report contain long sentences and paragraphs?
- Does the report effectively use supporting charts, graphs, tables, and figures to better convey your information?
- Does the report use consistent report formats for easy reading?
- Does the report contain spelling or grammatical errors?
- Does the report contain inaccurate information or math errors?

Activity

With your team,

1. Review and evaluate the final draft of your report or another team's report.
2. Develop the final draft of your report based on the evaluation.

Module 6

Making Business Presentations

Module 6

Making Business Presentations

Objective

When you complete this activity, you will be able to:

- Identify and describe the components of a business presentation.
- Develop and present your business presentation.
- Evaluate the quality of your business presentation.

Organizing Your Presentation

Business presentations usually have three major components:

Introduction. In the introduction, you tell the audience:

- Your name and the name of your group or organization
- The purpose of your presentation
- The major topics or sections of your presentation and the order in which you will present each section.

Body of Presentation. In the body of the presentation, you:

- Present the most critical information for the purpose of the presentation
- Explain the importance of the information for the purpose of the presentation.

Conclusion. In the conclusion, you:

- Summarize the most critical information in the presentation
- Summarize your conclusions and recommendations
- Ask for questions, reactions, and comments.

Keep your presentation short and to the point. Your presentation should be completed in the planned time.

Activity

Discuss the three major components of a business presentation. In your group, discuss which member(s) will give various parts of the presentation.

Developing Your Presentation Materials

Visual support material should support your presentation. These visual support materials should include:

1. Presentation outline that clearly communicate the organization of your presentation and the major points.
2. Supporting graphs, charts, figures, and tables.

Your supporting materials should minimally be printed and distributed as handouts to your audience.

You also should prepare talking points and notes for your team to follow so that you make sure that everyone is making the essential points and following the plan. These talking points and notes can be written on note cards.

Activity

With your group,

- Identify various resources you may be using for your presentation.

Making Your Presentation

Developing effective business presentations is only half the job. You also must deliver an effective presentation.

Here are some tips for making effective business presentations.

Start on Time. Make sure that you are prompt and ready to begin your presentation when it is scheduled.

Project a Professional Image. Make sure that you are dressed appropriately for a business presentation. Show good posture and stand up straight when you speak. State your conclusion(s) and recommendation(s) clearly and succinctly. Do not force your audience to draw their own conclusions. That is the purpose of your presentation.

Show Enthusiasm and Confidence. Show you are very excited about your report and that you are confident in presenting and explaining the information.

Maintain Eye contact and Show Friendliness and Respect. Show interest in you audience by maintaining eye contact during your presentation. Show respect for your audience and do not use negative body language.

Use Effective Speaking Techniques. Speak slowly and distinctly. Use standard grammar. Avoid meaningless words like “y’know.”

Use Visual Aids. Use visual aids effectively to communicate information and maintain the interest and engagement of the

audience.

Answer Questions Completely. Welcome questions and reactions. Make sure you understand the question. Answer the question completely. Don't be defensive if you don't know the answer. Show interest in finding the answer.

End on Time. Complete your presentation within the planned time.

Activity

In your groups do the following:

- Prepare your presentation and develop your notes, cards, and visual aids. **Visual aids should at least be a listing of topics you put up on a board or a flipchart.**

Practicing and Evaluating Your Presentation

Most people cannot deliver effective presentation without practice and feedback. It is critical that you practice your presentation out loud with your instructor and students using your visual aids and notes.

Ask for feedback on the following:

Introduction

- Did we present our name and the name of our group or organization?
- Did we present the purpose of our presentation?
- Did we present the major topics or sections of our presentation and the order in which we will present each section?
- Did we effectively gain the interest and attention of the audience for our presentation?

Presentation Content and Visual Aids

- Did we present the most critical information for the purpose of the presentation?
- Did we organize this information in a logical way and in the most appropriate sequence?
- Did we effectively explain the importance of the information for the purpose of the presentation?
- Did we prepare neat and clear visual aids and handout materials without errors?
- Did we present a summary of the major conclusions and

recommendations?

- Did we ask for questions, comments, and reactions?

Presentation Delivery

- Did we dress appropriately to project a professional image?
- Did we stand straight and maintain eye contact with the audience at all times?
- Did we demonstrate confidence in presenting the information?
- Did we speak clearly at the appropriate rate?
- Did we speak in complete sentences with correct use and pronunciation of words including professional terminology?
- Did we speak with intonation and volume that engaged the audience?
- Did we effectively use our visual aids?
- Did we present and explain the information effectively?
- Did we show respect for the audience in presenting and responding to questions, comments, and reactions?
- Did we effectively seek a full understanding of questions, comments, and reactions?
- Did we completely answer questions or respond to comments and reactions?

Activity

With your team,

1. Prepare your presentation and develop your note cards and visual aids.
2. Practice your presentation with your instructor and students and make improvement based on their evaluations.

Module 7

Company Presentation and Discussion

Module 7

Company Presentation and Discussion

Objective

When you complete this activity, you will:

- Know specific details of the agenda for your presentation at Family Dollar Stores, Inc.
- Discuss ways to improve upon the project if asked to do it again.
- Learn more about the types of issues facing companies like Family Dollar Stores, Inc. everyday.

Company Presentations

Your instructor will review the agenda for the presentation of student reports to Family Dollar Stores, Inc. representatives.

- Make sure you know your schedule time of presentation and how long you will have to make your presentation.
- Make sure you are prepared for Family Dollar Stores, Inc. representatives to ask you questions.
- Be sure you are prepared to take notes to evaluate the presentations of other students.
- Make sure you know how to dress for the presentation.

Improving Your Report and Presentation

Discuss with the class how you would do the project differently if you were asked to do it again.

Learning More about Warehousing and Distribution Center Operations

The Family Dollar Stores, Inc. representatives will talk briefly about the types of warehousing and distribution problems they deal with everyday and career opportunities with Family Dollar Stores, Inc.

Be prepared to ask questions about warehousing and distribution center operations and careers in the industry and Family Dollar Stores, Inc.