

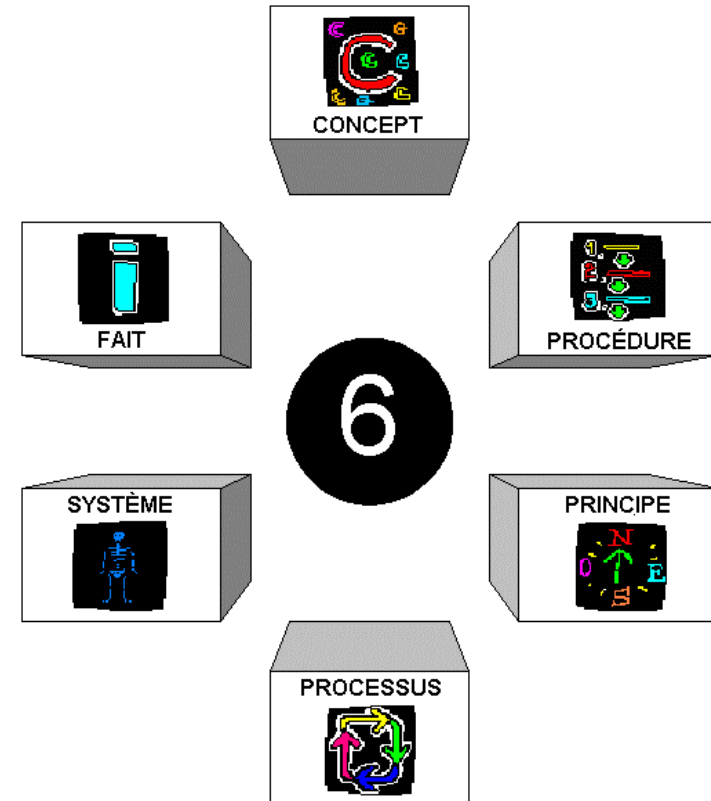
Self-Study: The Six Types of Content

The Six Types: What Are They?

According to Ruth C. Clark's training methodology, all instructional content can be organized into a single matrix that has six types of content.

- ◆ facts
- ◆ concepts
- ◆ procedures
- ◆ processes
- ◆ principles
- ◆ systems or structures*

* "System" is not included in Clark's original model. However, after several attempts to fit certain content into the Clark classification, the Mentor team found it necessary to add this sixth type.



Self-Study: The Six Types of Content (cont'd)

Facts versus Concepts

Introduction

Even if you're familiar with the notions of “fact” and “concept”, they are used here with a much more limited definition than their semantic meaning. It is important to be aware of this when designing exercises and training material.

Definition of “Fact”

The information is specific and unique. A fact may be a statement, data, an image, etc. Each "fact" may be unique or identical to other facts.

Definition of “Concept”

A group of objects, symbols, ideas or events that:
are identified by a single word
share some essential characteristics or features
may have different secondary characteristics

Examples

FACT	CONCEPT
Concrete facts:	Concrete concepts
<input type="checkbox"/> The EFR-013.document	<input type="checkbox"/> Woman
<input type="checkbox"/> The model of this bike	<input type="checkbox"/> Income tax forms
<input type="checkbox"/> The number of people in the room	<input type="checkbox"/> Chair
Abstract facts:	Abstract concepts
<input type="checkbox"/> The specific resistance of an electrical circuit	<input type="checkbox"/> Integrity
	<input type="checkbox"/> Management

Indicators

If it's a **Fact**,

⇒ Look for a specific and unique piece of information in the form of a statement, data, an image, etc.

If it's a **Concept**,

⇒ Look for multiple occurrences of a group that shares common characteristics and that are identified by a single word, for example, administrative management, budget management, management by objectives, etc.



Self-Study: The Six Types of Content (cont'd)

Exercise 1.1

Indicate which of the following are facts and which are concepts.

- _____ 1. Your Windows user ID code
- _____ 2. Communication
- _____ 3. Section 34.4 of the Civil Code
- _____ 4. Your employee number
- _____ 5. The keyboard of an ITT 760 terminal
- _____ 6. Amphibians
- _____ 7. Option "B" in the *Statement Frequency* field of a client file
- _____ 8. The name of your department head
- _____ 9. Account number 212385 284756.
- _____ 10. Unionized employees

Note: The answers are on page 12.

Exercise 1.2

Provide three examples of a "fact" and three examples of a "concept" taken from your training experience.

FACTS	CONCEPTS

Self-Study: The Six Types of Content (cont'd)

Procedures versus Processes

Introduction

It is important to distinguish between procedures and processes. Most training programs require both.

Definition of Procedure

A sequential series of steps that **a person** must follow to carry out a task or reach a decision.

Definition of Process

A series of events or phases that describe how something works, usually involving several people or entities.

Examples

PROCEDURE (LINEAR OR WITH DECISION POINTS)	PROCESS (MECHANICAL, BUSINESS OR SCIENTIFIC)
<input type="checkbox"/> How to fill in a time sheet.	<input type="checkbox"/> How a transmission works
<input type="checkbox"/> How to establish a client's credit rating.	<input type="checkbox"/> The hiring process
	<input type="checkbox"/> How a computer system produces invoices
	<input type="checkbox"/> How metal is plated using electrolysis.

Indicators

If it's a **Procedure**,

⇒ Look for "how-to" steps, text written in the second person, or in the active voice.

If it's a **Process**,

⇒ Look for descriptive steps, text written in the third person, or in the passive voice.

Self-Study: The Six Types of Content (cont'd)

Exercise 1.3

Identify which of the following are procedures and which are processes.

- _____ 1. Recipe for shepherd's pie
- _____ 2. How electricity is generated with a hydroelectric turbine
- _____ 3. How to cash a cheque at the bank
- _____ 4. The steps involved in making a medical diagnosis
- _____ 5. Producing payroll for a large company
- _____ 6. How to read a credit file

Note: The answers are on page 12.

Exercise 1.4

Write down three procedures and three processes taken from your training experience.

PROCEDURES	PROCESSES

Self-Study: The Six Types of Content (cont'd)

Principles

Introduction

Content based on principles is more difficult to classify.

Situations based on principles are often thought to be processes or procedures. In some cases, both categories apply to certain types of content. (This is where context helps us decide).

Generally, if there are several ways of describing a task, or if there are a lot of exceptions, it becomes very difficult to write a procedure or a process. In such situations, there are usually guidelines or rules to help with the task. This type of content is content based on principles.

Definition

A principle is defined as a statement of a cause and effect relationship, which can be used to generate guidelines for a particular context.

Examples of content involving principles

- ◆ Effective customer communications
Example: Attempt to achieve complicity with your client.
- ◆ How to take a good picture.
Example: Get closer to the human subject.
- ◆ .Win/win negotiations
Example: Try to understand others before getting others to understand you.
- ◆ How to take care of an employee who is struggling with personal problems.

Indicators

- ◆ Is the task handled differently each time?
- ◆ Does the outcome of the task depend on the employee's circumstances and judgement?
- ◆ Do the actions required depend on a statement or guideline that is open to interpretation?



Self-Study: The Six Types of Content (cont'd)

Exercise 1.5

Identify which of the following involve principles, which involve procedures and which involve processes.

- _____ 1. The steps in taking apart the derailleur on a bike
- _____ 2. Motivating trainees
- _____ 3. Evaluating the relevance of a new position within the company
- _____ 4. How an electrical meter works
- _____ 5. The steps involved in applying a formula in an electronic spreadsheet
- _____ 6. Handling an aggressive client
- _____ 7. How to calculate the balance for an account number
- _____ 8. How to calculate the distance between two cities on a topographical map

Note: The answers are on page 12.

Exercise 1.6

List three tasks that involve procedures and three tasks that involve principles, based on your training experience.

TASKS THAT INVOLVE PROCEDURES	TASKS THAT INVOLVE PRINCIPLES

Self-Study: The Six Types of Content (cont'd)

Systems or structures

Introduction

When dealing with systematically structured content, the way in which the content is organized is key information that participants usually must have in order to understand a task or a function.

Definition

System content is information about the structure or arrangement of the various elements in a system, task or organization. System content is hierarchical or relational information that defines the relationship between certain elements in a given situation.

Examples

- ◆ A company's organizational chart that defines the relationship among its staff (hierarchical).
- ◆ The relationship between navigation screens, data input windows and viewing windows, and the other components of a computer application (relational AND hierarchical).
- ◆ Budget approval norms within a company (hierarchical)
- ◆ The positions and relationships among items in a data bank (relational)

Indicators

- ◆ System content provides information about the structure, positioning or relationships among the various elements.
- ◆ When the topic is a computer system, one talks about "navigating" among the various components.
- ◆ "System" as it is used here refers to the static part of a system. The dynamic part (how it works) is described by one or several processes.

Self-Study: The Six Types of Content (cont'd)

Exercise 1.7

Identify systems, principles, procedures or processes in the following list.

- _____ 1. How to calculate the calories in your food
- _____ 2. The milk pasteurisation process
- _____ 3. Your family tree
- _____ 4. Writing a text
- _____ 5. The structure of Internet servers
- _____ 6. How the bones in the human body work together
- _____ 7. The recipe for seafood pasta
- _____ 8. How your department's organizational chart is structured

Note: The answers are on page 13.

Exercise 1.8

1. Give three examples of systems and three examples of processes, taken from your training experience.

SYSTEMS	PROCESSES

Self-Study: The Six Types of Content (cont'd)

Summary: Classifying Content

	FACTS	CONCEPTS	PROCEDURES	PROCESSES	PRINCIPLES	SYSTEMS
How is this type of content applied ? (90% of training needs)	N/A	Discriminating Classifying	Performing a procedural task Apply a work method	Solving problems by applying a process	Performing a task by applying guidelines	Making connections among the various elements of a system or structure
Key words	Unique item	Definitions	Steps	Phases	Guidelines	Structures
	Statement	Group Characteristics	What do I do?	How does it work?	Judgement	Relationships
Examples	Emergency telephone number	Transformer Wire	How to replace a transformer	How a transformer works	Dealing with difficult people	Telecommunication network.
	735-Kv line	Invoice	How to fill out a time sheet	How electricity travels over a hydroelectric network	When to bring someone who has been electrocuted to the hospital emergency room	The status and relationship among data bank items.
	Ice storm (January 1998)	Electric current	How to report a power failure	Blood circulation		
	List of computer codes	Administrative management	How to give CPR	Electrical storm	Managing a project	

Self-Study: The Six Types of Content (cont'd)

Exercise 1.9: Classifying Content

Identify the type of content in each of the following statements.

1. For a mechanic, being able to list the possible sources of a drop in compression in a gasoline-powered motor.

Type of content: _____

2. For an electrician, being able to locate a faulty circuit using the rules involving direct current.

Type of content: _____

3. For a customer service representative, being able to explain why administrative fees were charged on an invoice

Type of content: _____

4. For a psychologist, being able to restate a patient's comments and engage in active listening.

Type of content: _____

5. For an IT technician, being able to explain how information is saved on a computer.

Type of content: _____

6. When standing before a landscape, a student photographer will be able to identify which natural lighting settings will provide the best picture.

Type of content: _____

7. For a nine-year old, being able to recite the "times 12" multiplication table.

Type of content: _____

8. For a customer support clerk, being able to identify why a client did not receive his/her invoice, as well as the department responsible for the error.

Type of content: _____

9. For a collection clerk, being able to provide a client's due date.

Type of content: _____

10. For a records clerk, being able to carry out all the transactions necessary to correct an invoice.

Type of content: _____

Self-Study: The Six Types of Content (cont'd)

11. A collection clerk will be able to list many excuses a client might use when he/she is late with a payment.

Type of content: _____

NOTE: The answers are on page 13.

Answers

Exercise 1.1

1. Fact
2. Concept
3. Fact
4. Fact
5. Fact
6. Concept
7. Fact
8. Fact
9. Fact
10. Concept

Exercise 1.3

1. Procedure
2. Process
3. Procedure
4. Process (could be considered a procedure if looked at from the physician's perspective only).
5. Process
6. Procedure

Exercise 1.5

1. Procedure
2. Principles
3. Principles
4. Process
5. Procedure
6. Principle
7. Procedure
8. Procedure

Answers (cont'd)

Exercise 1.7

1. Procedure
2. Process
3. System
4. Principles
5. System
6. System (some see this as a process since the interactions also have a dynamic aspect).
7. Procedure
8. System

Exercise 1.9

1. Process - Memorize
2. Principle - Apply
3. Procedure - Apply
4. Principles - Apply
5. Process - Memorize
6. Principle - Memorizing
7. Fact - Memorizing
8. Process - Application
9. Concept - Application
10. Procedure - Application
11. Fact - Memorizin

