

SYSTEMS THINKING BASICS¹

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STUDENTS GROUP WORK

ACTIVITY 1: IDENTIFYING SYSTEMS

Purpose: Identifying systems and their components, recognition of interrelated systems

Outcome: Recognition of systems within students' environment, their relationships and their purposes. Students get insights about intangible and possibly powerful components of systems that affect what happens in your environment.

Instructions: Identify three systems in your surrounding, including at least one in tourism, which includes some important but intangible components.

Example: Informal hotel reception system

- **Purpose:** To help the "official" hotel reception system so people feel they can make more informed decisions and debates. The informal system may also help defuse tension by offering an avenue for gossiping and rumours.
- **Components:** employees, guests, "open door system", the electronic mail system
- **Intangible components:** Information or "gossip", time to communicate, motivation to share information
- **Larger system:** The hotel, which has a formal communication system

1. List your three systems below:

2. In the spaces provided below, fill in the following information: the name of your system, the purpose that your system fulfils within a larger system, the components that make up your system, the intangible components of your system, the larger system of which your system is a part.

Your First System:
Purpose:
Components:
Intangible components:
Larger system:

Your Second System:
Purpose:
Components:
Intangible components:
Larger system:

Your Third System:
Purpose:
Components:
Intangible components:
Larger system:

¹ Anderson, V., Johnson L. (1997) *Systems Thinking Basics: From Concepts to Causal Loops*. Pegasus communication. Williston. ISBN 1-883824-12-9

ACTIVITY 2: REFLECTING ON SYSTEM CHARACTERISTICS

Purpose: To think about the behaviour of the systems you can see around you, to identify patterns of behaviour over time, and think about what causes that behaviour

Outcome: Simple graphs of observed behaviour patterns, awareness of the forces that drive behaviour patterns

Instructions: Write your answers to the following questions in the space provided.

QUESTIONS

1. Identify a chronic problem that you notice at tourism and hospitality world. (for example, “Hotel do well for a while, then drop with tourists, then pick up tourists again”; or every year more and more tourists want have exclusive service for less money”).
2. Try drawing a graph of what seems to be happening. (Tip: Ask yourself, is this pattern going up? Going down? Oscillating over a time?)
3. Looking at your graph, what do you see?
4. Is there any way that actions taken to solve the problem might actually be making things worse? If so, how?

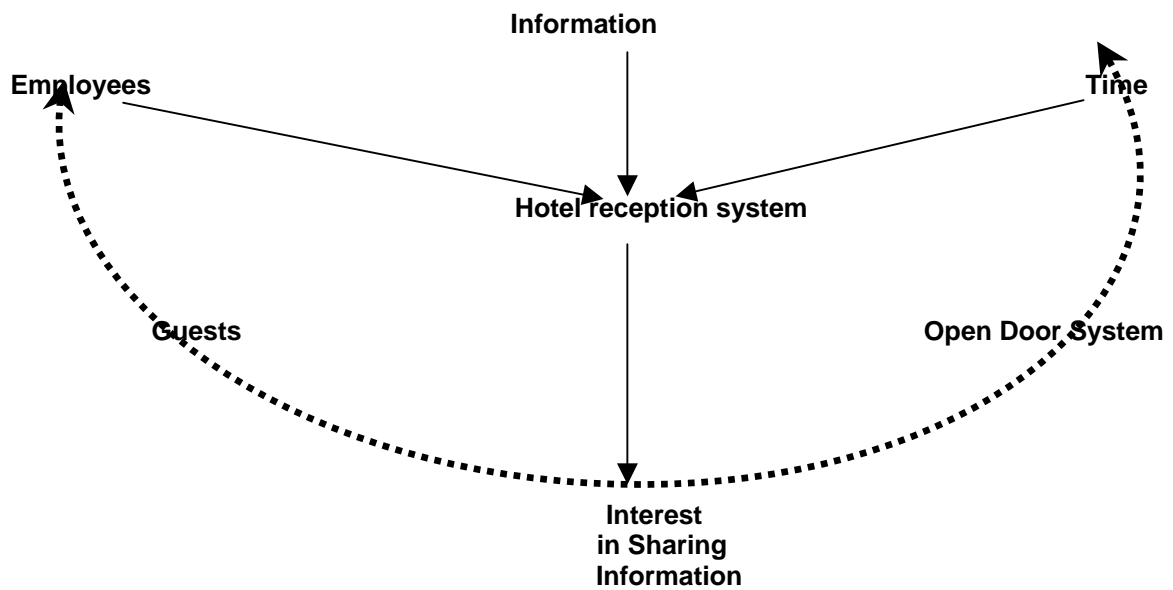
ACTIVITY 3: UNDERSTANDING SYSTEM FEEDBACK

Purpose: To begin using simple diagrams to show how components of a system are related and how feedback is returned through the system.

Outcome: Diagrams of the three systems you identified in Activity 1

Instructions: For each system you identified in Activity 1, draw a map or diagram of how the parts are related and how one part gives feedback to another- You may find there are many or only a few feedback connections. You may also find that some feedback travels through multiple steps before arriving back at its original source.

Example: Figure below from "Informal hotel reception system", shows the system discussed in Activity 1.



Now try diagramming your three systems:

Your First System:

Your Second System:

Your Third System: