



ensia The National School of
Artificial Intelligence
المدرسة الوطنية العليا للذكاء الاصطناعي

November 28, 2023



Introduction to Business / NHSAI (ENSIA) 2023-2024 / Instructor: Prof. Oukil

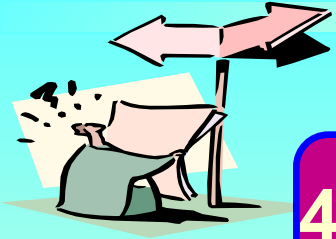


PART 3: PLANNING AND CONTROL

Chapter 9:

DECISION MAKING TOOLS

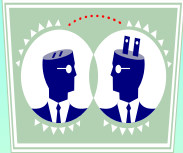
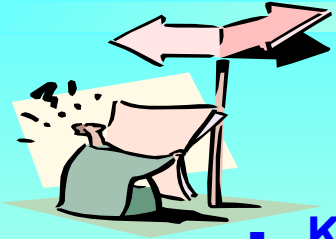
Prepared by
Argie Butler
Texas A&M University



4 Learning Goals

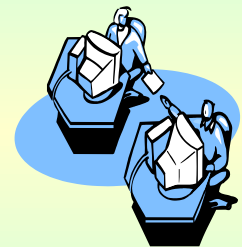
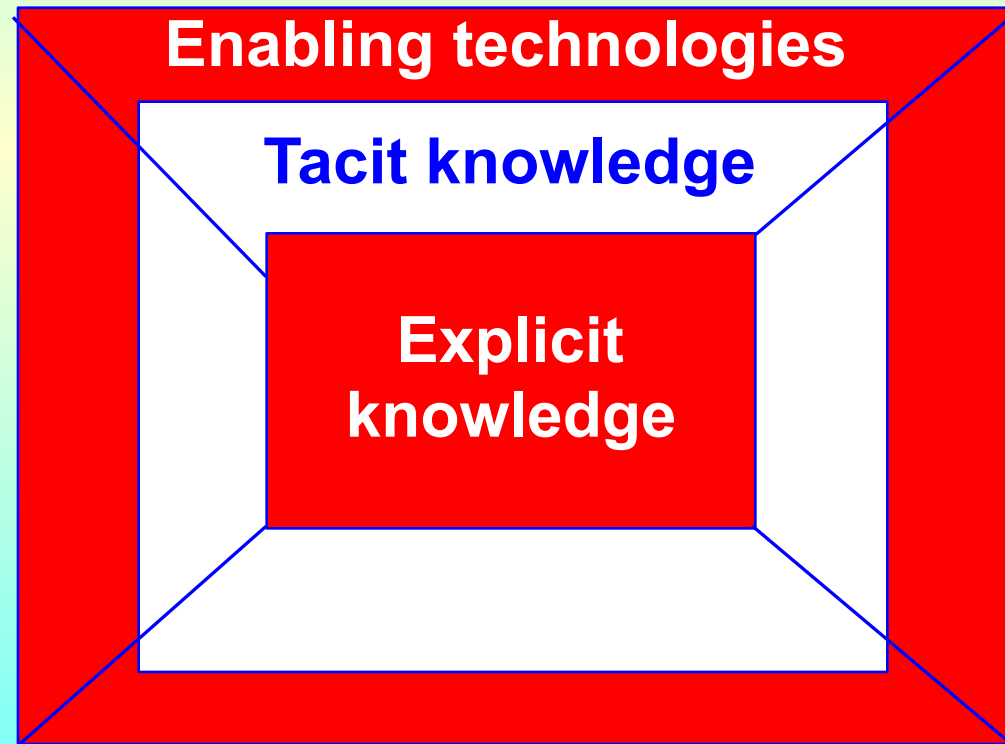


1. Explain the essentials of knowledge management (KM) and how it is used to create value for organisations > Balanced Scorecard Model;
2. Briefly describe forecasting and the uses of the 1- Delphi method, 2- simulation, and 3- scenarios;
3. Consider the creative process and how to use Osborn's creativity model;
4. Briefly explain 3 quality improvement tools: a) benchmarking, b) the Deming cycle, and c) the Baldrige quality program.



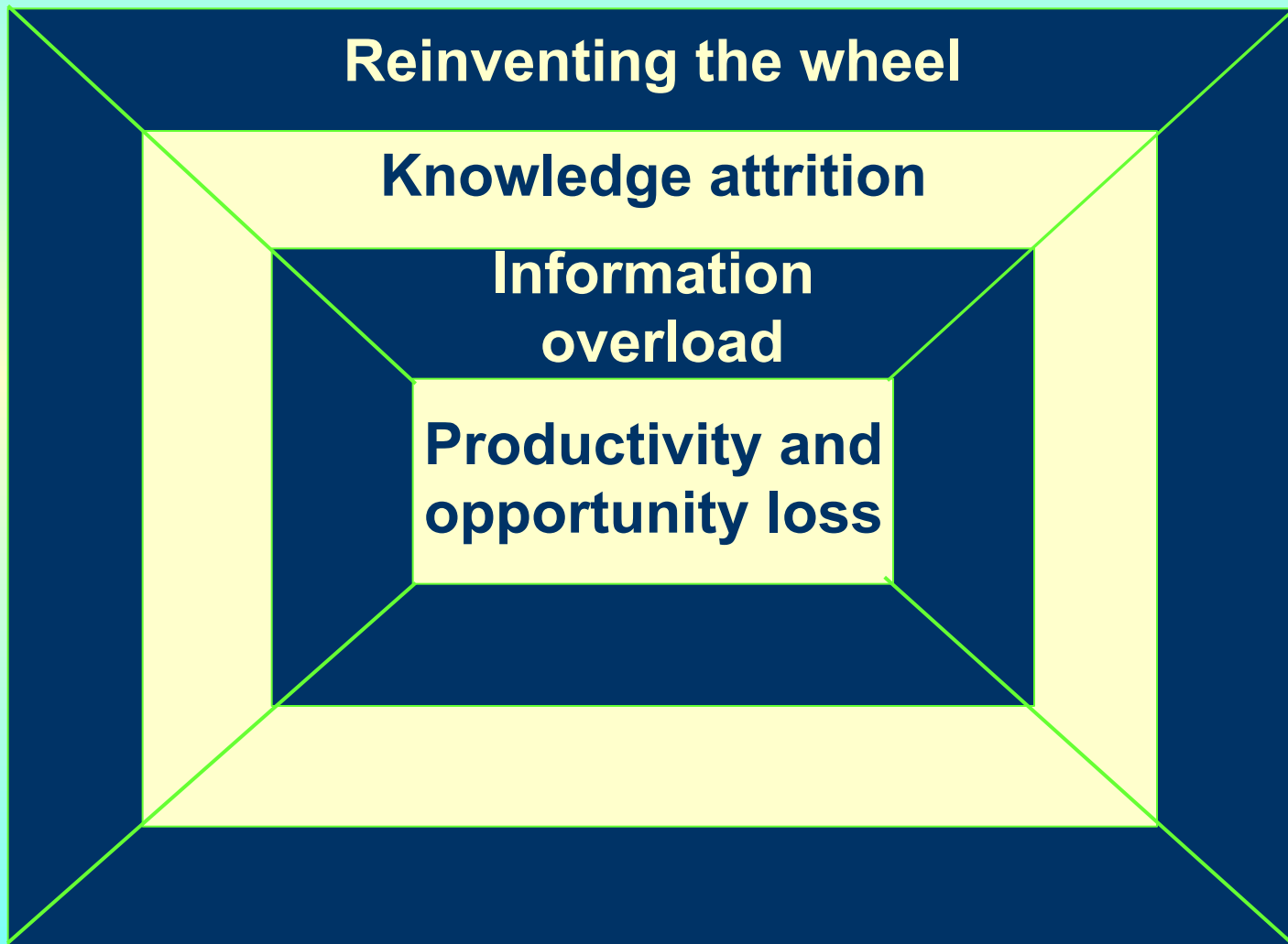
Using knowledge management

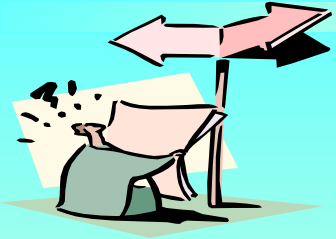
- KM is about much more than technology; it involves recognising, generating, documenting, distributing, and transferring among employees **useful information, know-how, and expertise** to improve organisational effectiveness.
- **The Main Components of KM are:**



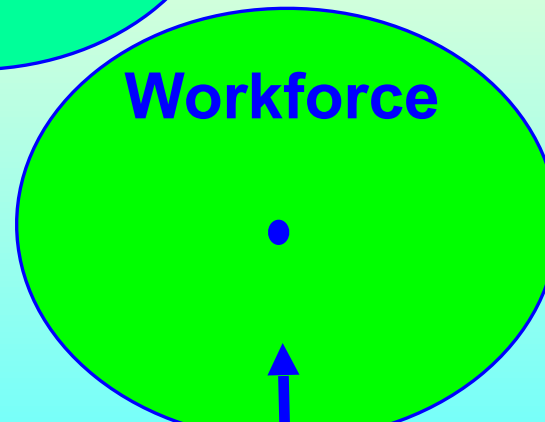
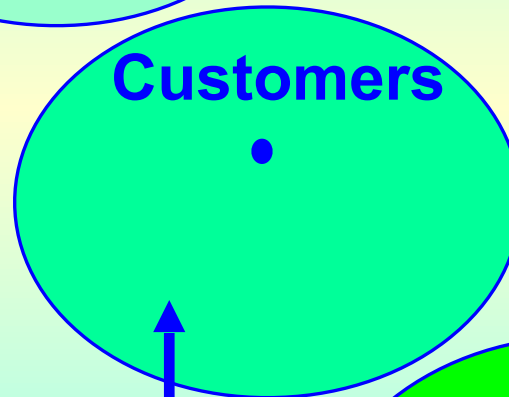
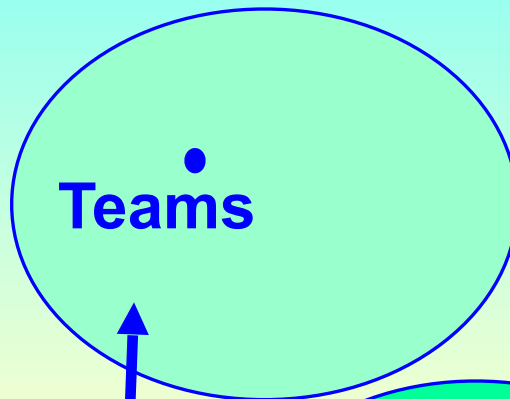


Consequences of Poor Knowledge Management





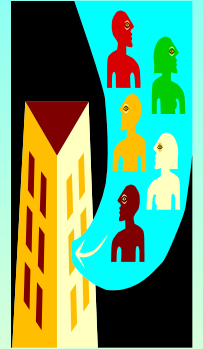
Knowledge Management Targets





BARRIERS TO KM

Modern Organisations consistently identify CULTURAL ISSUES as the greatest barriers to the successful implementation of KM .



Enabling Corporate Culture is critical

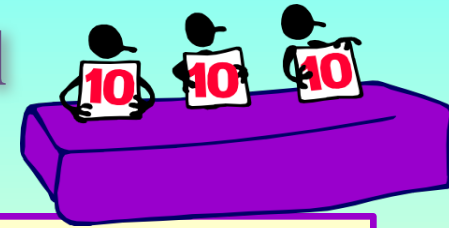
➤ **Sense of trust is essential.**

➤ **Belief that sharing expertise will not be used against the individual.**

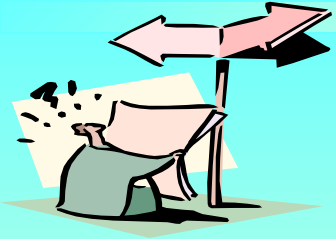
In Chapter 18, (Understanding Organisational Cultures and Cultural Diversity) and elsewhere, enabling cultures are explored in depth.



The Balanced Scorecard Model



- ❖ This model provides a process for an organisation to **gain deeper knowledge and understanding of its strategic decisions** by considering the role of finances, customers, internal processes, and learning/growth.
- ❖ It provides a broad perspective in planning and decision making.
- ❖ It takes account of financial and non-financial measures.



Balanced Scorecard Model

Financial Perspective (outcomes)

Goals



Measures



Initiatives



Customer Perspective (outcomes)

Goals



Measures



Initiatives



Vision
&
Strategies

Internal Perspective (activities)

Goals



Measures



Initiatives



Learning/Growth Perspective (activities)

Goals



Measures



Initiatives

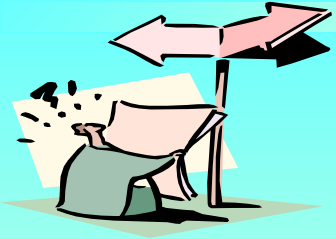




Using Forecasting Tools



- ❖ Forecasting involves projecting or estimating future events or conditions in an organisation's environment;
- ❖ It focuses on external and vital events/beyond the organisation's direct control;
- ❖ **Extrapolation**: projection of some trend or tendency from the past or present into the future;
- ❖ Numerous forecasting tools are available.



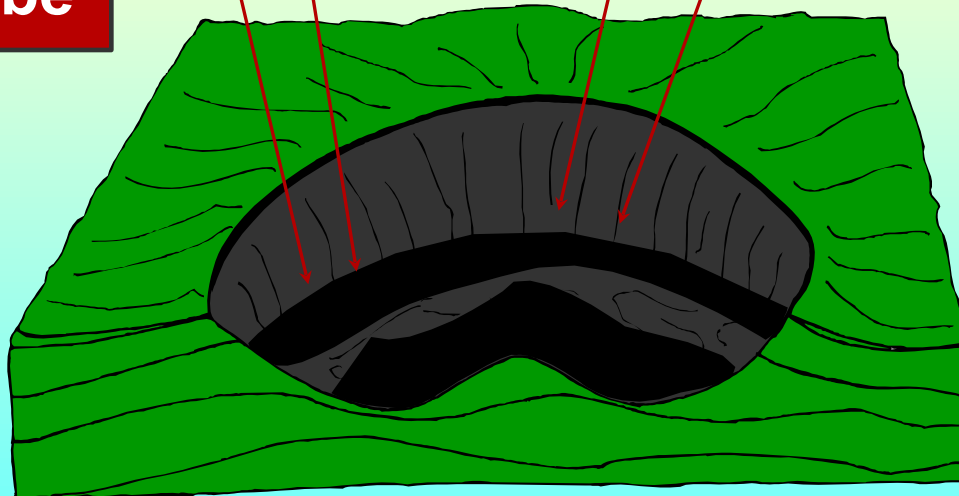
Forecasting Pitfalls

Listening to the media

Hearsay

Assuming that things are going to return the way they used to be

Tunnel vision



Delphi Method

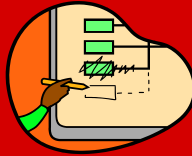
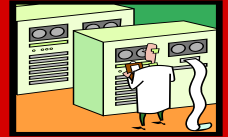
- ❑ Is a forecasting and decision-making tool for seeking consensus by a panel of experts (refining their judgments phase by phase);
- ❑ Series of questionnaires;
- ❑ Typically involves three phases:
 - ✓ Phase I: Questionnaire is sent to a group of experts,
 - ✓ Phase II: Summary of the first phase is prepared with revised questionnaire,
 - ✓ Phase III: Summary of the second phase is prepared with revised questionnaire.
- ❑ Three phases are typically recommended.



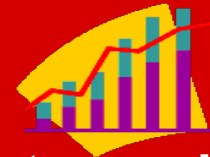


Simulation

- Representation of how a real system performs;
- Can be altered by users;
- Many types of business simulations, often computer/ software based, such as:



- **Treasury and Financial Models**

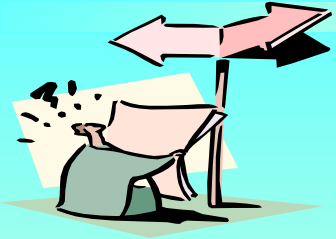


Cash management, Income statements, cash flow projections, Stock and commodity prices.

- **Marketing Models**



Sales budgets, Pricing, Market share projections, and Advertising and market plans.



Scenarios



❖ Descriptive narratives that help people recognise and adapt to plausible changing and uncertain alternative futures.

❖ Enables management to ask numerous “**what if**” type of questions, such as:



- **What if** the competitor (or set of competitors) commits to a diversification of its product line (new products for existing and new customers) through a combination of current and new technologies?
- **What if** the competitor launches a series of new products?
- **What if** the competitor launches a sequence of extensions to its current product lines (with the specific aim of attracting new customers to the market)?



Creativity Framework



- ❑ Ability to visualise, generate, and implement new ideas or concepts or new associations between existing ideas or concepts that are novel and useful.
- ❑ Stages in the Creative Process.

1. Preparation



2. Concentration



3. Incubation

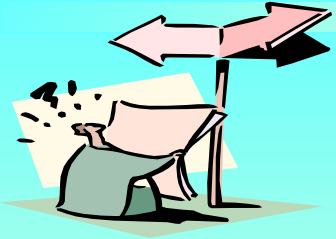


4. Illumination



5. Verification



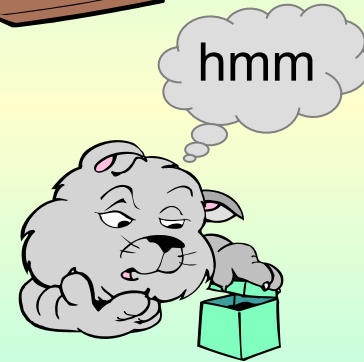
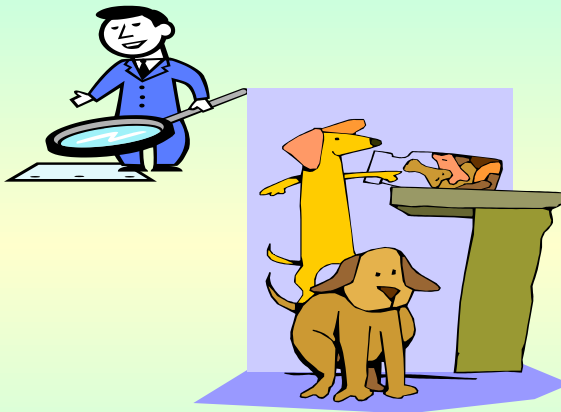


Osborn's Creativity Model

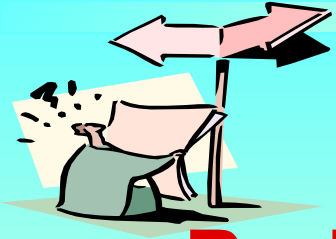


❑ Is a three-phase decision-making process that involves:

- Fact finding,
- Idea finding, and
- Solution finding



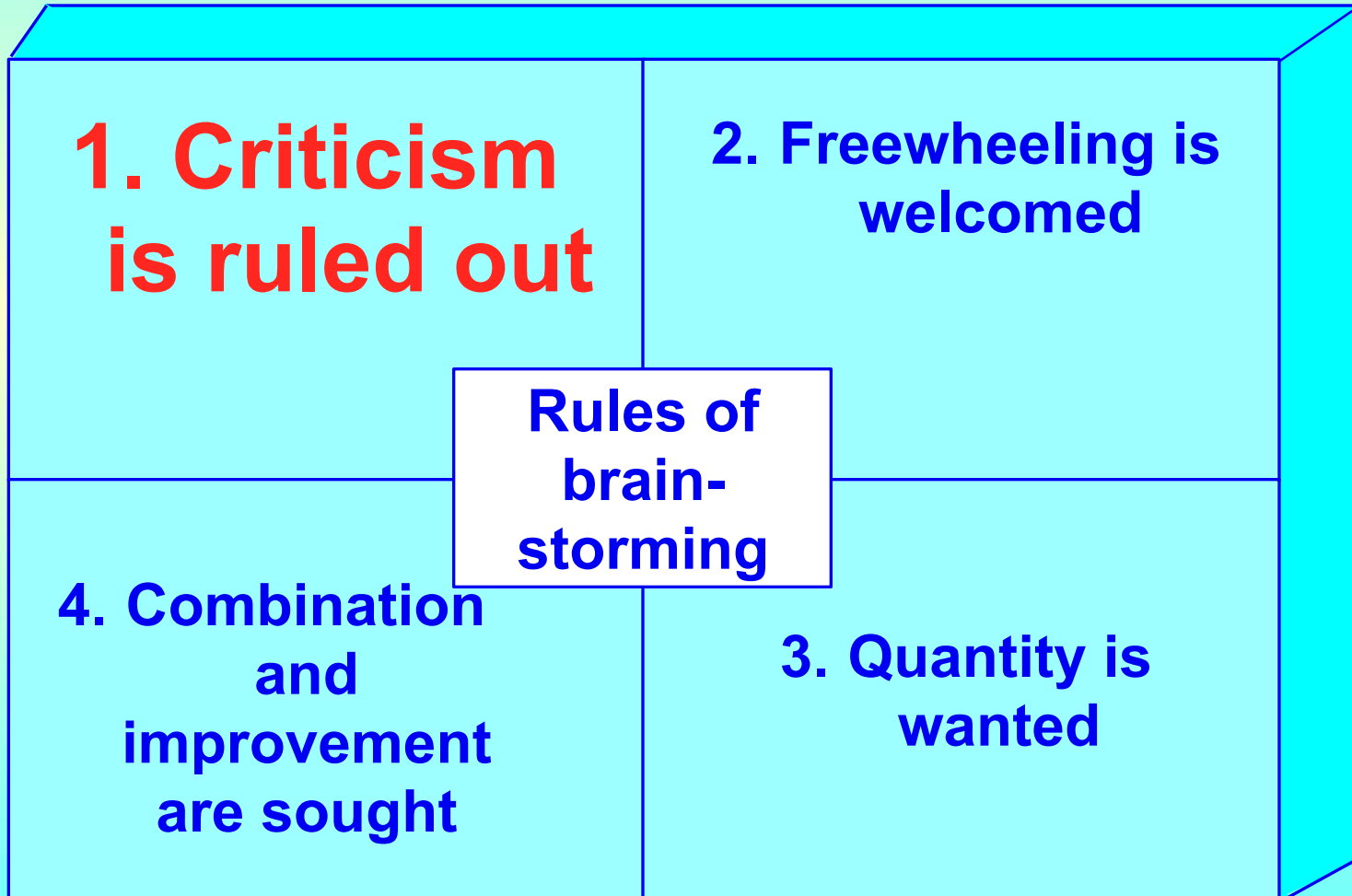
❑ Intended to stimulate freewheeling thinking, novel ideas, curiosity, and cooperation.



Osborn's Creativity Model



- **Brainstorming**: an unrestrained flow of ideas in a group or team with all critical judgments suspended.



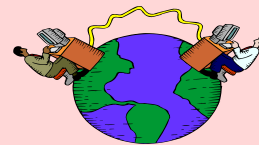


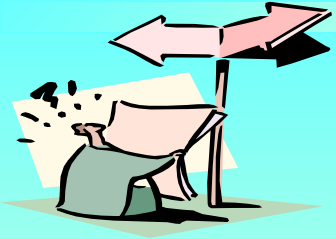
Osborn's Creativity Model

❖ Electronic Brainstorming



- Makes use of personal computers that are networked to input and automatically disseminate ideas in real time to all team members, each of whom may be stimulated to generate additional ideas;
- Individuals may input ideas via the keyboard as they think of them;
- No identification of individual or team that generates each idea;
- May be better than face-to-face;
- Safer for lower-level employees

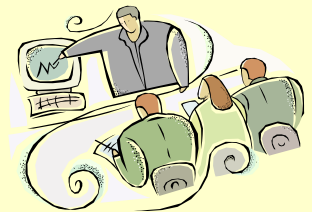
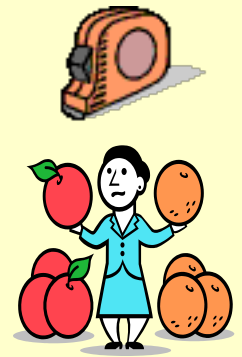




Quality Improvement Tools:

a) Benchmarking

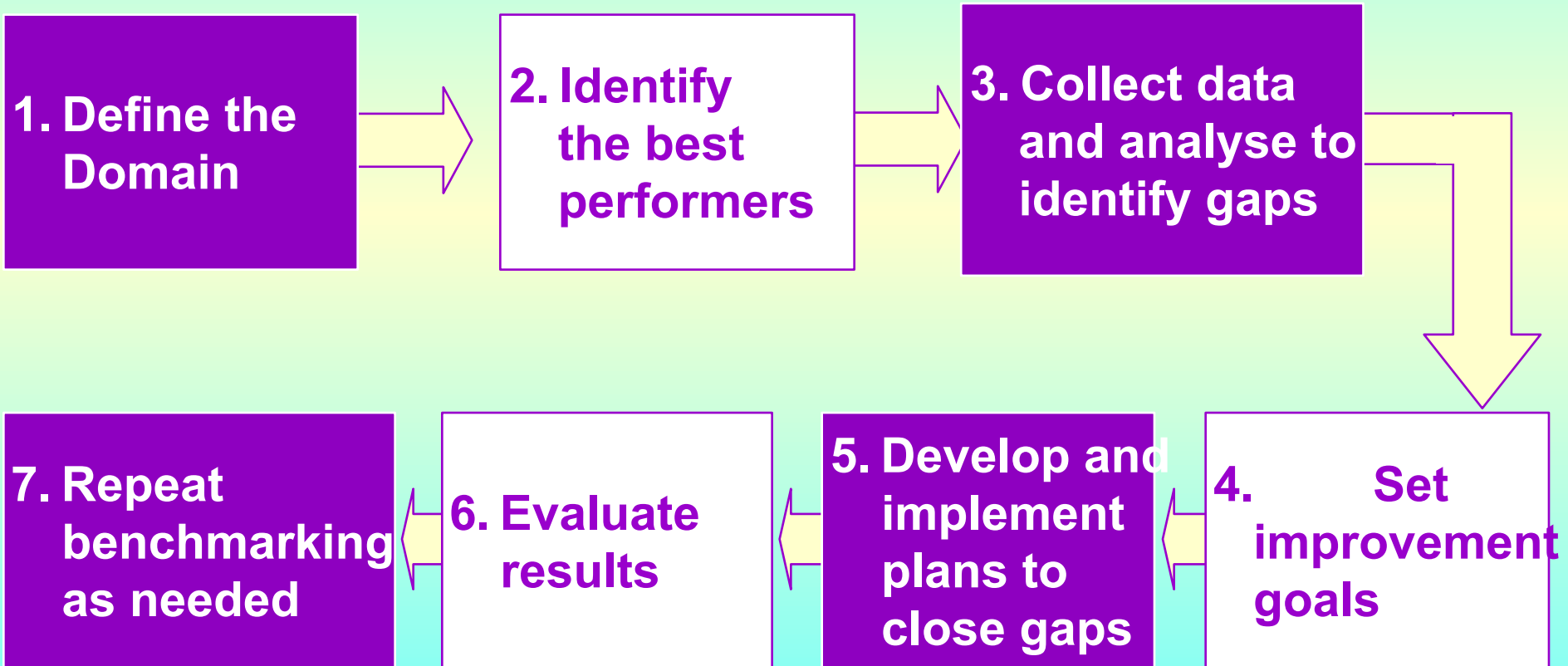
- ❖ **A systematic and continuous process of measuring and comparing an organisation's goods, services, and practices against industry leaders anywhere in the world to gain information that will help the organisation improve performance.**
- ❖ **Can be expensive and time consuming.**
- ❖ **Helps managers and employees learn from others.**





Benchmarking

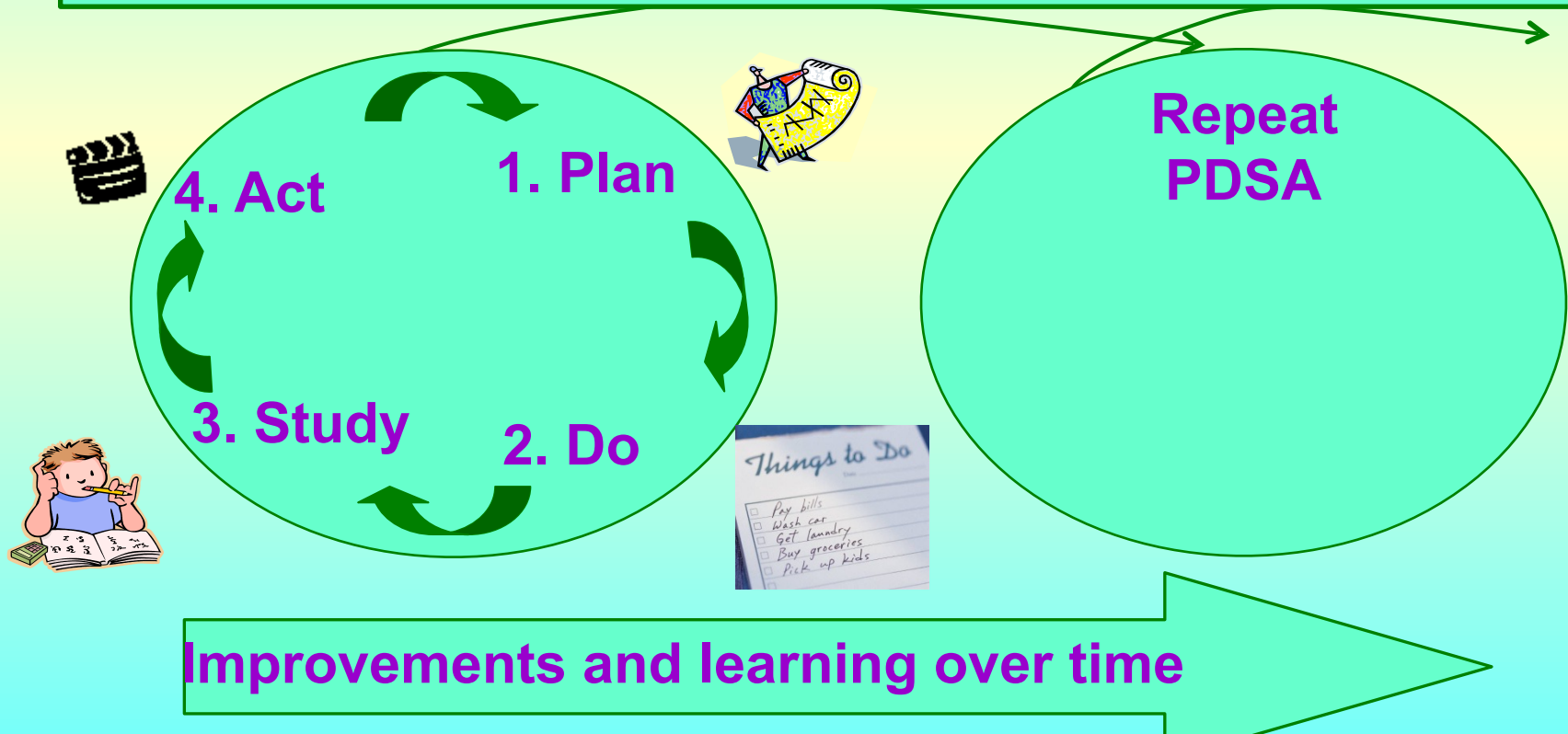
□ Stages/Process

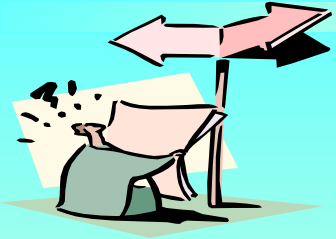




b) The Deming Cycle

- Comprises four stages—plan, do, study, and act—that should be repeated over time to ensure continuous learning and improvements in a function, product, or process





c) Baldrige Quality Program

- ❑ Provides a systems perspective for managing an organisation and its key processes to achieve the result of performance excellence.

❑ Malcolm Baldrige National Quality Award:

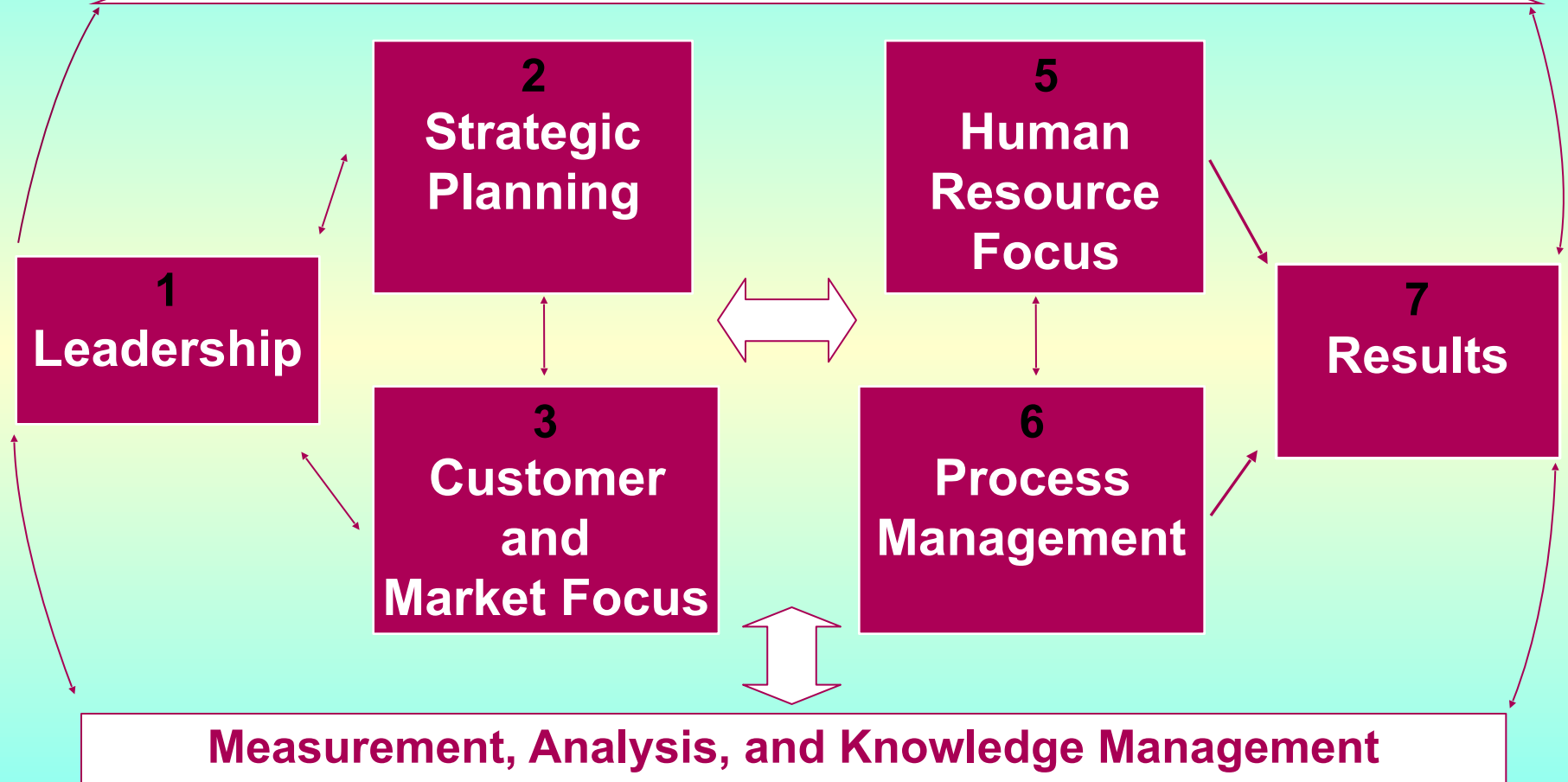
- ✓ Promotes excellence in organisational performance;
- ✓ Recognises the quality and performance achievements of U.S. organisations;
- ✓ Publicises successful performance strategies.

- ❑ Systems perspective.



Baldrige Quality Program

**Organisational Profile:
Environment, Relationships, and Challenges**

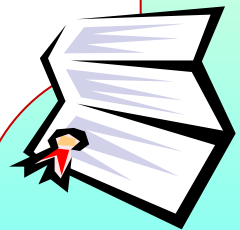


Source: *Baldrige National Quality Program*. Gaithersburg, MD: National Institute of Standards and Technology, 2006, 5.



ISO STANDARDS

- ❑ Set of international standards that define the requirements for an effective quality management system.
- ❑ Standards published by the International Organisation for Standardisation (ISO), headquartered in Geneva, Switzerland.
- ❑ ISO certification is administered by accreditation and certification bodies within the country where the firm operates.





The International Standards for quality are:

ISO 8402, Quality Definitions;

ISO 9000, Quality Management and Quality Assurance Standards - Guidelines for selection and use;

ISO 9001, Quality Systems - Model for quality assurance in design/development, production, installation and servicing;

ISO 9002, Quality Systems - Model for quality assurance in production and installation;

ISO 9003, Quality Systems - Model for quality assurance in final inspection and test;

ISO 9004, Quality Management and Quality Systems Elements - Guidelines.



THANK YOU

BUSINESS INTELLIGENCE



Creative Commons
Attribution-NonCommercial-ShareAlike 4.0 International License

BUSINESS SIMULATION GAMES