DECISION MAKING, PROBLEM SOLVING, AND CRITICAL THINKING

- Why director of nursing at KAH took a decision to start an in-service educational for nurses?
- Why director of nursing at KAH took a decision for 3 days communication workshop for RNS ?
- Why director of nursing at KAH took a decision that each nurse should not stay in a unit more than 6 months?
- Why director of nursing at KAH took a decision to hire 50 RNS during the year 2007?
- Why Faculty of Nursing at JUST took a decision to change the study plan of Nursing Program starting year 2005?
Why BSN graduates in Jordan suppose to sit for a Competency Nursing Exam?

Why the RN should change position for a CVA client every 2 hours?

Why a client with bipolar disorder and treated with lithium carbonate must consume not less than 2500 ml of water/day?

Why the RN should check the pulse rate before administering digoxin therapy to a heart failure client?

Why kidney function test should be checked prior cardiac cath.?

Why should be a policy stated that “each discharged client should use a wheelchair when leaving the hospital”?

DECISION MAKING, PROBLEM SOLVING, AND CRITICAL THINKING: Requisites for Successful Leadership and Management

The Primary Requisites for Successful Management and Leadership:

- Decision making.
- Problem Solving,
- Critical thinking,
Decision making is often thought to be synonymous with management.

Decision making is one of the criteria on which management expertise is judged.

Much of any manager's time is spent critically examining issues, solving problems, and making decisions.

It is the authors' belief that problem solving, decision making, and critical thinking are learned skills that improve with practice.

Decision making is usually triggered by a problem but is often handled in a manner that does not eliminate the problem.

Decision making is both the innermost leadership activity and the core of management. Therefore, effective leaders and managers must be able to answer the following questions:

- Do the circumstances warrant that a decision is required?
- How should the decision be made?
- Who should be involved in the decision-making process?
DEFINITION OF TERMS

- **Decision making**: is a complex, cognitive process often defined as choosing a particular course of action. 
  
  *Webster's definition*-to "judge or settle"-is another view of decision making. Both definitions imply that there was *doubt* about several courses of action and that a choice was made that eliminated the uncertainty.

- Decision making is one step in the problem-solving process, an important task that relies heavily on critical-thinking skills.

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*Problem-Solving* is part of decision making. “A systematic process that focuses on analyzing a difficult situation”, *Problem-Solving* always includes a decision-making step.

- Although **Decision Making** is the last step in the **Problem-Solving** process, it is possible for decision making to occur without the full analysis required in **Problem-Solving**.

- Although decision making is the last step in the problem-solving process, it is possible for decision making to occur without the full analysis required in problem solving.
**Critical thinking**: Sometimes referred to as reflective thinking, is related to evaluation and has a broader scope than decision making and problem solving. "Critical thinking is purposeful, outcome-directed thinking that is based on a body of knowledge derived from research and other sources of evidence."

- Most theorists agree that **Critical Thinking** is more complex than problem solving or decision making, it involves higher-order reasoning and evaluation, and has both a cognitive and affective component.
- The authors believe that insight, intuition, empathy, and the willingness to take action are additional components of critical thinking.

- Most theorists agree that **Critical Thinking** is more complex than problem solving or decision making, it involves higher-order reasoning and evaluation, and has both a cognitive and affective component.
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Belcher (2000) maintains that managers' critical thinking skills can be improved by having students write management case studies for analysis. She thinks that improved critical thinking skills have a positive effect on the quality of a manager's decision making and problem solving skills.

Ignatavicious (2001) feels that anyone can learn critical thinking but it is a long-term process that must be practiced, nurtured, and reinforced.

- **Cognitive Skills Used in Critical Thinking:**
  - Interpretation: involves clarifying meaning
  - Analysis: understanding data
  - Evaluation: determining outcome
  - Inference: drawing conclusions
  - Explanation: justifying actions based on data
  - Self-regulation: examining one's professional practice
Are You a Critical Thinker?

- Try to examine yourself in the following characteristics: Answer by Yes/No….
  - Creative
  - Open to new ideas
  - Intuitive
  - Energetic
  - Analytical
  - Insightful
  - Willing to take action
  - Willing to change
  - Knowledgeable

Characteristics of Critical Thinker (cont.):

- Persistent
- Assertive
- Communicator
- Flexible
- Empathic
- Caring
- Observant Risk-taker
- Resourceful
INTUITIVE DECISION MAKING MODEL

Table 1.1 Comparing the Decision-Making Process with the Nursing Process

<table>
<thead>
<tr>
<th>Decision-Making Process</th>
<th>Simplified Nursing Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the decision</td>
<td>Assess</td>
</tr>
<tr>
<td>Collect data</td>
<td>Plan</td>
</tr>
<tr>
<td>Identify criteria for decision</td>
<td>Implement</td>
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<tr>
<td>Identify alternatives</td>
<td></td>
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<tr>
<td>Choose alternative</td>
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<tr>
<td>Implement alternative</td>
<td></td>
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<tr>
<td>Evaluate steps in decision</td>
<td>Evaluate</td>
</tr>
</tbody>
</table>

Figure 1.3 Intuitive decision-making model (Romiszowski, 1981). Reprinted with permission of Journal of Nursing Staff Development.
Display 1.3  Critical Elements in Decision Making

- Define objectives clearly
- Gather data carefully
- Generate many alternatives
- Think logically
- Choose and act decisively

Display 1.5  Qualities of Successful Decision Makers

Although not all experts agree, Huston (1990) suggests that the following are qualities of successful decision makers:
- Courage. Courage is of particular importance and involves the willingness to take risks.
- Sensitivity. Good decision makers seem to have some sort of antenna that makes them particularly sensitive to situations and others.
- Energy. People must have the energy and desire to make things happen.
- Creativity. Successful decision makers tend to be creative thinkers. They develop new ways to solve problems.
THEORETICAL APPROACHES TO PROBLEM SOLVING AND DECISION MAKING

- Traditional Problem-Solving Process
- The Managerial Decision-Making Process
- The Nursing Process
- Intuitive Decision-Making Model

Traditional Problem-Solving Process

- The traditional problem-solving model is widely used and is perhaps the most well known of the various models. The seven steps follow. (Decision-making occurs at step 5)
  1. Identify the problem.
  2. Gather data to analyze the causes and consequences of the problem.
  3. Explore alternative solutions.
  4. Evaluate the alternatives.
  5. Select the appropriate solution.
  6. Implement the solution.
  7. Evaluate the results.
- **The Managerial Decision-Making Process:**

  The managerial decision-making model, a modified traditional model, eliminates the weakness of the traditional model by adding a goal-setting step. Harrison (1981) has delineated the following steps in the managerial decision-making process:

  1. Set objectives.
  2. Search for alternatives.
  3. Evaluate alternatives.
  4. Choose.
  5. Implement.
  6. Follow up and control.

- **The Nursing Process:**

  Educators have identified the nursing process as an effective decision-making model, although there is current debate about its effectiveness as a clinical reasoning model (Pesut & Herman, 1998). As a decision-making model, the nursing process has a strength that the previous two models lack, namely its feedback mechanism.

  - The weakness of the nursing process, like the traditional problem-solving model, is in not requiring clearly stated objectives. Goals should be clearly stated in the planning phase of the process, but this step is frequently omitted or obscured.
Recently, however, there has been a renewed interest in intuitive thinking and Ignatavicious (2001) identifies it as one of the characteristics of an expert critical thinker. It must be remembered, however, that intuition can be overpowered by emotions.

Using an intuitive decision-making model is helpful in order to prevent emotions from clouding the decision-making process.

- **Intuitive Decision-Making Model**

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  - It must be remembered, however, that intuition can be overpowered by emotions.
  - Using an intuitive decision-making model is helpful in order to prevent emotions from clouding the decision-making process.
CRITICAL ELEMENTS IN PROBLEM SOLVING AND DECISION MAKING:

- The following elements, considered crucial in the problem-solving process, frequently result in poor-quality decisions:

  Determine Objectives Clearly
  Gather Data Carefully
  Generate Many Alternatives
  Think Logically
  Choose and Act Decisively
 Determine Objectives Clearly:

- If a decision lacks a clear objective or if an objective is not consistent with the individual's or organization's stated philosophy, a poor-quality decision is likely.

- Sometimes the problem has been identified but the wrong objectives are set.

- Problems can be extremely complex and may need multiple objective.

 Gather Data Carefully:

Numerous parents have been misled by the factual statement, "Johnny hit me."

- To gain knowledge and insight into managerial and leadership decision making, individuals must reach outside their current sphere of knowledge in solving the problems presented in this text.

- Some data-gathering sources include textbooks, periodicals, experts in the field, colleagues, and current research.
- **Questions that should be examined in data gathering are:**

  1. What is the setting?
  2. What is the problem?
  3. Where is it a problem?
  4. When is it a problem?
  5. Who is affected by the problem?
  6. Is this your problem or someone else’s problem?
  7. What is happening?
  8. Why is it happening? What are the causes of the problem? Can the causes be prioritized?
  9. What are the basic underlying issues? What are the areas of conflict?
  10. What are the consequences of the problem? Which is the most serious?

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**LEARNING EXERCISE:**

- **Gathering Necessary Information**

- Identify a poor decision you recently made because of faulty data gathering. Have you ever made a poor decision because necessary information was intentionally or unintentionally withheld from you?
- **Generate Many Alternatives:**
  - The greater the number of alternatives that can be generated during this phase, the greater the chance that the final decision will be sound.
  - When seeking alternatives, individuals need to expand their horizons;
  - The most common trap managers fall into is limiting the borders of their decision frames (Clancy, 2003).
  - Involving others in the process confirms the adage that two heads are better than one.
  - Because everyone thinks uniquely, increasing the number of people working on a problem increases the number of alternatives that can be generated.

- Brainstorming is another frequently used technique.

  - The goal in brainstorming is to think of all possible alternatives, even those that may seem "off target."

  - By not limiting the possible alternatives to only apparently appropriate ones, people are able to break through habitual or repressive thinking patterns and allow new ideas to surface.

  - Although most often used by groups, people making decisions alone also may use brainstorming.
Think Logically:

- People think illogically primarily in three ways:
  - Overgeneralizing.
  - Affirming the consequences.
  - Arguing from analogy.

Learning Exercise 1.3

Possible Alternatives in Problem Solving
In the personal choice scenario presented in Learning Exercise 1.1, some of the following alternatives could have been generated:
- Do not take the new position.
- Hire a full-time housekeeper, and take the position.
- Ask your husband to quit his job.
- Have an abortion.
- Ask one of the parents to help.
- Take the position, and do not hire child care.
- Take the position and hire child care.
- Have your husband reduce his law practice and continue helping with child care.
- Ask the supervisor if you can work four days a week and still have the position.
- Take the position and wait and see what happens after the baby is born.

Assignment: How many of these alternatives did you or your group generate? What alternatives did you identify that are not included in this list?
Choose and Act Decisively:

- In the final analysis, One Must Act.
- Individuals may become vulnerable at this last point in the problem-solving process and choose to delay acting because they lack the courage to face the consequences of their choices.
- In many cases, judgments found to be ineffective or inappropriate can be changed.
- However, decisions must continue to be made, although some are of poor quality, because through continued decision-making, people develop increased decision-making skills.

INDIVIDUAL VARIATIONS IN DECISION-MAKING

- Because decision making involves perceiving and evaluating, and people perceive by sensation and intuition and evaluate their perception by thinking and feeling, it is inevitable that individuality plays a part in decision making.
- Because everyone has different values and life experiences, and each person perceives and thinks differently, different decisions may be made given the same set of circumstances.
INDIVIDUAL VARIATIONS IN DECISION-MAKING

- **Values:**
- **Life Experience:**
- **Individual Preference:**
- **Individual Ways of Thinking:**

- **Values:**
  - Individual decisions are based on each person's value system.
  - No matter how objective the criteria, value judgments will always play a part in a person's decision making, either consciously or subconsciously the alternatives generated and the final choice selected are limited by each person's value system.
  - For some, certain choices are not possible because of a person's beliefs.
  - Because values also influence perceptions, they invariably influence information gathering, information processing, and final outcome (Marquis & Huston, 1995).
  - Values also determine which problems in one's personal or professional life will be addressed or ignored.
- *Life Experience:*
  - Each person brings to the decision-making task past experiences that include education and decision-making experience.
  - The more mature the person and the broader his or her background, the more alternatives he or she can identify.
  - Each time a new behavior or decision is observed, that possibility is added to the person's repertoire of choices.
  - Having made good or poor decisions in the past will influence a person's decision making.

- *Individual Preference:*
  - The decision maker, for example, may see certain choices as involving greater personal risk than others and therefore may choose the safer alternative.
  - Physical, economic, and emotional risks, and time and energy expenditures, are types of personal risk and costs involved in decision making.
Individual Ways of Thinking:

- People who make decisions alone are frequently handicapped because they are not able to understand problems fully or make decisions from both an analytical and intuitive perspective.

- However, in most organizations, both types of thinkers maybe found.

- Using group process, talking management problems over with others, and developing whole-brain thinking also are methods for ensuring that both intuitive and analytical approaches will be used in solving problems and making decisions.

- Use of heterogeneous rather than homogeneous groups will usually result in better-quality decision making.

- *It is good organizational theory for leaders to surround themselves with a variety of talented people, including individuals who sometimes have strange ideas and are "out of the box” thinkers.*

- *Two brains better than one???????
**Effect of Organizational Power on Decision Making:**

- Powerful people in organizations are more apt to have decisions made (by themselves or their subordinates) that are congruent with their own preferences and values.
- On the other hand, people wielding little power in organizations must always consider the preference of the powerful when they make management decisions.
- The ability of the powerful to influence individual decision making in an organization often requires adopting a private personality and an organizational personality.

**ETHICAL ASPECTS OF DECISION MAKING**

*Ethical principles:*

- Autonomy: personal freedom, freedom of choice
- Beneficence: the actions one takes should be in an effort to promote good.
- Fidelity: keeping ones commitment and promises.
- Justice: treating people equally and fairly.
- Nonmalefiscence: if you cannot do good at least do no harm.
- Paternalism: allows one to make decisions for another, limits freedom for choice.
- Respect for others: is considered the highest principles that incorporates all of the principles.
- Utility: what is best for common good outweighs what is best for the individual
- Veracity: the individual indicate that people should tell the truth.