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Foundations of Institutional Research 2015

The contribution of institutional research to quality decision making: Roles and functions

Presented by Herman Visser

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Acknowledgements

- Mainly based on work of McLaughlin and Howard (2004) as subsequently adapted by them
- Inputs by SAAIR colleagues, in particular Dr Gert Steyn

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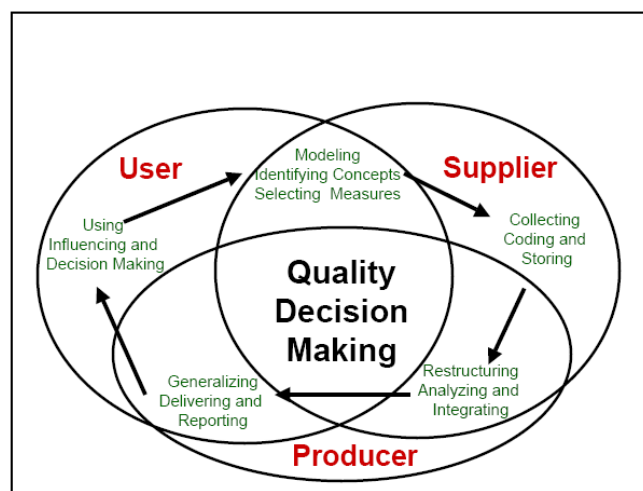SOUTHERN AFRICAN ASSOCIATION FOR INSTITUTIONAL RESEARCH

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Purpose of this session

The purpose of this session is to **understand how institutional research can contribute to quality decision making** via the **roles and functions of institutional research**.

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The Information Support Process

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Objectives

- Focus on the Information support and Decision support functions of IR and key roles

- Discuss institutional obstacles and opportunities

- Contribute to organisational learning by enhancing knowledge and understanding

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Making data usable

- The effectiveness of Institutional Research in supporting an institution's decision making *depends heavily on the availability of usable data*
- Usable implies that the data are *sufficiently accurate, timely and collected systematically*
- The IR function is often called upon to provide data or create usable information to *depict history, describe current status and anticipate the future*
- There are **natural barriers which limit the value of data and information**

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Disabilities in learning to improve from Peter Senge, Fifth Discipline

- I am my position –- focus on own task / silos
- The enemy is out there – blaming other
- The illusion of taking charge – addressing symptoms, underlying problems remain
- The fixation on events rather than results
- The parable of the boiled frog – drowning in data
- The delusion of learning from experiences – but never directly experience consequences
- The myth of the management team – turf wars

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The learning disciplines from Peter Senge, Fifth Discipline

Learning organisation can provide the foundation for meeting data mangement challenges.

Consider learning disciplines:

- Personal mastery – competency & skills → creative work
- Mental models – Information Support Circle
- Shared vision – Institution supported by quality data
- Team learning – roles support team learning
- Systems thinking – what is important?

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Managing data strategically

- A learning organisation will not evolve naturally
- Requires significant effort at all levels of the organisation (*institution*)
- Senge: Concept of organisational learning should be the backbone for decision making environment and data use
- Role of Institutional Research function and a strategy for change?

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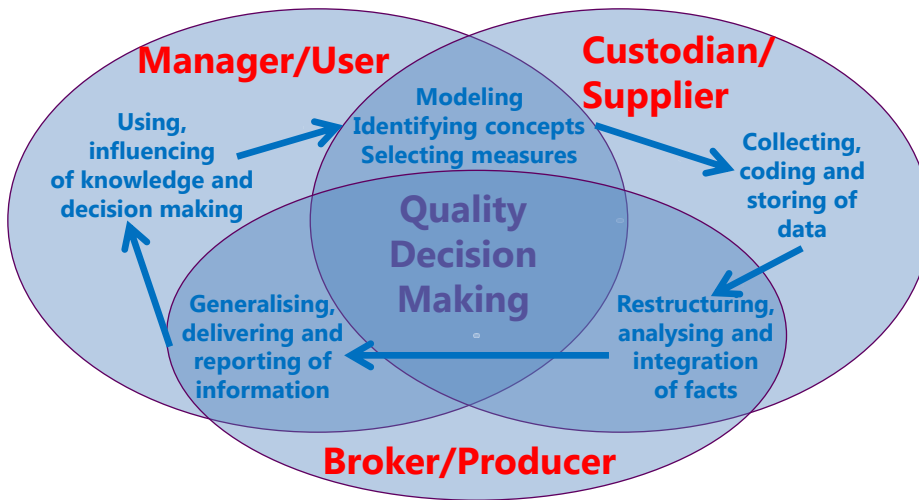SOUTHERN AFRICAN ASSOCIATION FOR INSTITUTIONAL RESEARCH

Role and function of Institutional Research

- **Five function model:**
  basic data transformed into information designed to increase intelligence in decision-making processes
- **Three key roles:**
  activities, tasks and events required → key roles

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Information support process

Manager/User
Custodian/Supplier
Using, influencing of knowledge and decision making
Modeling Identifying concepts Selecting measures
Collecting, coding and storing of data
Quality Decision Making
Generalising, delivering and reporting of information
Restructuring, analysing and integration of facts
Broker/Producer

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Five functions

- Identify & collect measures and develop conceptual models
- Collect, code and store data
- Restructure, analyse & integrate facts
- Generalise, deliver & report information
- Use & influence knowledge and decision making

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Three key roles

- Custodian/Supplier

- Broker/Producer

- Manager/User

Custodian/Supplier role

- Focus on data integrity
- Help with selection of appropriate data for analysis
- Adds value through knowledge
- Influence selection of methodologies & essential questions to identify information needs

Broker/Producer role

- Transform data into information
  - Integrating data from various sources
  - Restructure data to focus on concerns
  - Analyse data to look for causality, desirability of outcomes, parsimony of elements
- Participates and consults in selection of methodologies and development of essential questions for decision making

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Manager/User role

- Manager applies information to situation
- Information therefore becomes part of intelligence of the situation and reduces uncertainty of the situation
- Often decision maker but may often be responsible for supporting decision process (IR)
- Primary responsibility to identify problem elements and unknowns

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Major properties

- **Dependency**

  Value added for each of the five functions in the Information circle is dependent on the quality of the preceding function

- **Cooperation**

  Quality of information depends on the mutual involvement in key activities of the three roles

Data problems

- **Data definitions:**

Disagreement on definitions; incorrect interpretations; data collection forms; lack of measures

- **Technology:**

Lack of hardware and software resources to maintain, transfer and analyse data; lack of appropriate tools

- **Data access:**

Inaccessible data; lack of data about the data

Changing data support structures

- **Data requirement**

  Standardising and integrating historical data and current data

- **Software tool requirements**

  Interconnectivity tools, analysis tools and security tools

- **Skills and training requirements**

  Skills, training and support, knowledge, ability

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Changing Institutional Research function

- **Manager/User:** User of all the critical and key data elements
- **Broker/Producer:** Dealing with data quality issues and data integration challenges to provide internally and externally standardised extracts of time variant data
- **Custodian/Supplier:** Obligation to supply current levels of information and analysis support while creating more effective delivery strategies of institutional data

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Adding value/ Increasing knowledge

- **IR's role:**

Extensive data-use methodology skills; Can teach these skills to other users; Key role in standardisation and advocacy

- **Questions that lead the way to knowledge:**
  (1) What do we know?
  (2) What does it mean?
  (3) So what?

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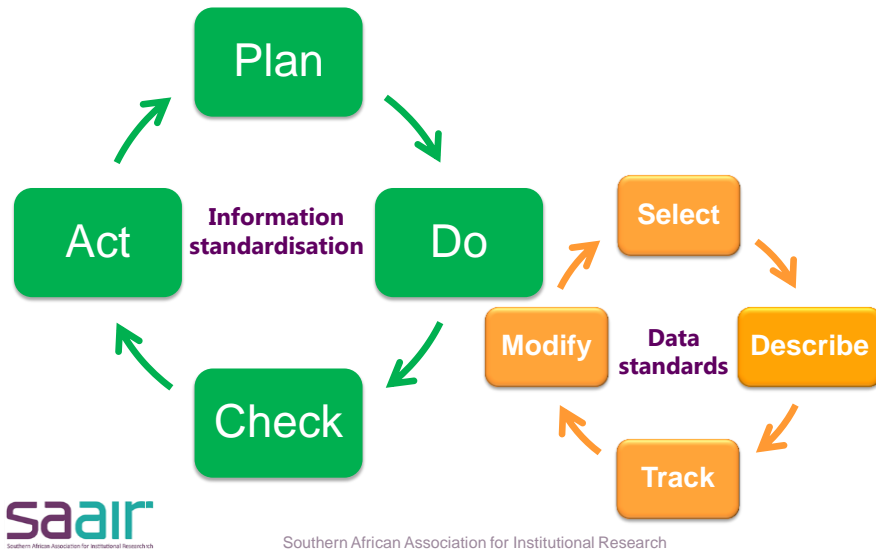SOUTHERN AFRICAN ASSOCIATION FOR INSTITUTIONAL RESEARCH

Barriers to quality information

- Identify and measure concepts
  Disease: *"Belief Bulimia"*
- Collect and store data
  Disease: *"Data Dyslexia"*
- Restructure and analyse facts
  Disease: *"Dimensional Dementia"*
- Deliver and report information
  Disease: *Myopic Megalomania"*
- Use and influence knowledge
  Disease: *"Creative Carcinomas"*

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Shewart cycle

Plan-Do-Check-Act loop

- **Plan**
  - Data management structure
- **Do**
  - Data standardisation
- **Check**
  - Processes and procedures
- **Act**
  - Implement and monitor data access and data use

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Questions / Discussion

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