Action Research

Benjamin Fritzsche
Ingo Just

Verantwortlicher Professor:
Prof. Dr. Florain Alt
Outline

• Definition & Characteristics
• AR Planning & Performing
• AR Evaluation
• Development
• Usage in IS & computing
• Advantages & Disadvantages
• Discussion
Definition & Characteristics

**Action research** is a research initiated to solve an immediate problem [...] led by individuals working with others in teams or as part of a "community of practice" to improve the way they [...] solve problems.

(Wikipedia)
Definition & Characteristics

History

- 1940s - 50s: Lewin (USA)
- 1950s - 60s: Tavistock Institute (UK)
Definition & Characteristics

- Concentration on practical issues
- An iterative cycle of plan-act-reflect
- Action outcomes plus research outcome
- Emphasis on change
- Collaboration with practitioners
- Multiple data generation methods
Definition & Characteristics

Action Research vs. Consultancy

- More vs. less required documentation
- Theoretical vs. empirical justifications
- Cyclical vs. linear process
- Different time and budget constraints
Planning & Performing

• Outline

  – FMA(R)
  – Research Process
  – Research Protocol
  – Participation
  – Self-delusion & Group-thinking
  – Outcomes & Generalization
Planning & Performing

• F, M, A, (R)

F – framework of ideas
M – problem solving methodology
A – area of application
R – action research process
Planning & Performing

• Research Process (plan-act-reflect)
Planning & Performing

• Research Protocol

**Content:**

• The objectives of the project
• How will it be evaluated
• The roles and responsibilities of all participants
• Organizational constraints

**Involvement:**

• Collaborative
• Facilitative
• Expert
Planning & Performing

• Participation

• Goal: full participation by all affected
• Reality: professional-client relationship

Important in AR:
• The degree of involvement of those affected
• Political relationships between the participants
• Any constraints on the free exchange of views and hence on the claimed outcomes
Planning & Performing

• Self-delusion & group-thinking

Self-delusion

• If researchers work alone, they should explain what steps were taken to avoid self-delusion
• use fellow academics to challenge any assumptions and assertions

Group-thinking

• Devils advocate procedure:
  • a theory does not apply
  • A method is not working
  • An evaluation lacks on empirical evidence
Planning & Performing

• Outcomes

<table>
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<tr>
<th>Action</th>
<th>Research</th>
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<tbody>
<tr>
<td>• Practical achievements in the problem situation</td>
<td>• Theoretical achievements</td>
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<tr>
<td>• Include:</td>
<td>• Learning about the processes of problem-solving and acting in a situation</td>
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<tr>
<td>• Improved efficiency</td>
<td>• Confirm/ modify/ reject existing theories, or build new ones</td>
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<td>• Greater effectiveness</td>
<td></td>
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<td>• Enhanced communication</td>
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Planning & Performing

• Generalizations

Do not:

• make any generalizations from one action research study that might have unique features

Do:

• reflect and think if your outcomes are applicable elsewhere
• give sufficient information about the problem for readers
Evaluation

Easy 10 step Evaluation Guide:

1. The plan-act-reflect cycle
2. Explicit F, M and A
3. Data generation
4. Extent of participation
5. Self-delusion and group-think
6. Outcomes and generalization
7. New action research
8. Limitations of the AR
9. Flaws and omissions
10. Efficiency of the AR strategy
Development

“New Action Research” Definitions:

Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework. (Rapoport, 1970, p. 499)

A general term to refer to research methodologies and projects where the researcher(s) tries to directly improve the participating organization(s) and, at the same time, to generate scientific knowledge. (Kock, 1997)
Development

Relational Praxis

Everyday world consists of

• Relationships, co-creation and participation

Removal of distinctions

• Researcher-subject
• Academic-practitioner

Research is undertaken

• With, for and by people

Focusing on

• Information society
• Digital divide
• Community informatics
• E-democracy
Development

Reflexive-practical outcome

Technical
- Functional improvements
- Majority of action research projects

Practical
- Functional improvements
- Reflection and understanding
- Self-educational

Emancipatory
- Functional improvements
- Self-understanding
- Evaluate social or organizational context
- Empowers participants to overcome social barriers
# Development

## Plurality of knowing

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
<td>Empathy, Intuition, Feeling</td>
</tr>
<tr>
<td><strong>Presentational (emerges from</strong></td>
<td>Stories, Drawings, Music</td>
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<tr>
<td><strong>Propositional</strong></td>
<td>Logical and organized ideas and theories</td>
</tr>
<tr>
<td><strong>Practical</strong></td>
<td>Ability to exercise a skill</td>
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Development

Significant work

- Well-grounded in everyday concerns of people
- Moves beyond the technical
- Goal: "That work is inspiring"
- Worthwhile research as well as organizational objectives
Development

Enduring consequences and infrastructure

- Continuous development which helps us
- Seeded work which can be continued by any researcher
- New patterns of behavior and structures within a group
- Work that can be used to develop own work

Bradbury and Reason (2001)
Usage in IS & computing

• Used in exploration of better system development methods or methodologies

• Examples:

  - SSM (Soft Systems Methodology)
  - Multi-view Methodology
  - ETHICS Methodology (Effective Technical and Human Implementation of Computer-based Systems)
  - WISDM, web development methodology
Usage in IS & computing

- Wray Photo Display
  - Taylor and Cheverst
  - Public display for community-generated photography
  - use of photos and how public display technology may support these interactions
  - After 2 years over 1000 uploads
  - Positive feedback
Usage in IS & computing

http://thesharcproject.files.wordpress.com/2013/07/wray.jpg?w=225&h=300
Advantages & …

Relevant to people in the real world

Linkage between academic and everyday world

Suited to systems development and problem-solving methods

Can create greater appreciation of all types of knowledge

Change peoples’ life and improve social justice
… Disadvantages

- Unknown and unaccepted by many computing researchers
- Cause, effect, outcomes maybe not generalizable
- Sometimes confusion with consultancy
- Uns suited for people unwilling to work democratically
- Difficult to meet the needs and expectations of everyone
Take Home Message

• Produce practical and research outcome
• Prepare the iterative Plan-act-reflect process
• Let the practitioners participate
• Remove the researcher-subject distinction
• Do significant work
Discussion

Action now. Let‘s talk!
References

• Action Research (excerpt)