

Action Research Fundamentals

Peter Axel Nielsen



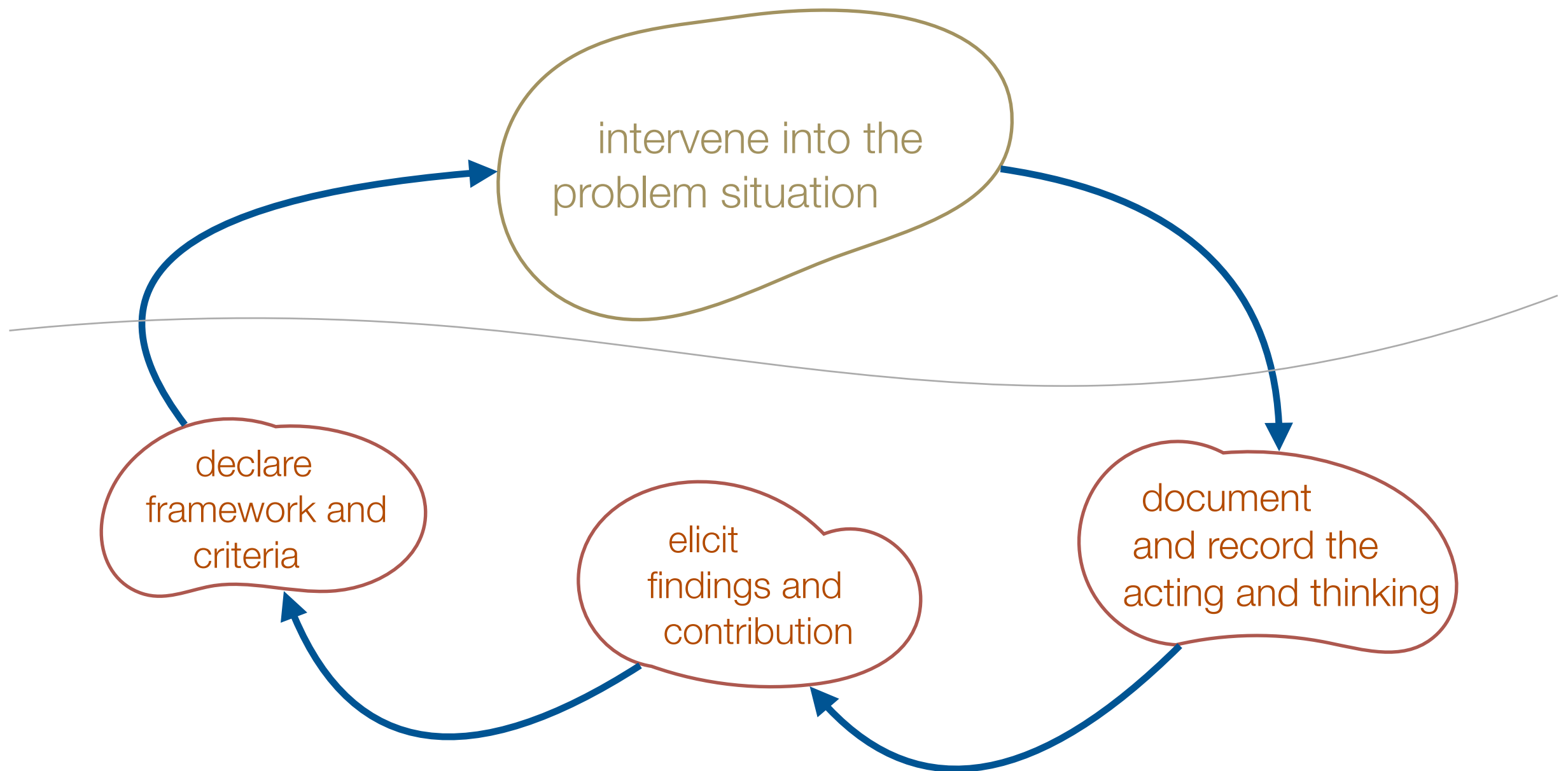
RESEARCH CENTRE FOR

socio-interactive design



AALBORG UNIVERSITY
DENMARK

Action research: a study of change



→ dependency

Criteria

CAR criteria

1. Principle of the Researcher–Client Agreement (RCA);
2. Principle of the Cyclical Process Model (CPM);
3. Principle of Theory;
4. Principle of Change through Action; and
5. Principle of Learning through Reflection.

Table 1. Criteria for the RCA

1a	Did both the researcher and the client agree that CAR was the appropriate approach for the organizational situation?
1b	Was the focus of the research project specified clearly and explicitly?
1c	Did the client make an explicit commitment to the project?
1d	Were the roles and responsibilities of the researcher and client organization members specified explicitly?
1e	Were project objectives and evaluation measures specified explicitly?
1f	Were the data collection and analysis methods specified explicitly?

Table 2. Criteria for the CPM

2a	Did the project follow the CPM or justify any deviation from it?
2b	Did the researcher conduct an independent diagnosis of the organizational situation?
2c	Were the planned actions based explicitly on the results of the diagnosis?
2d	Were the planned actions implemented and evaluated?
2e	Did the researcher reflect on the outcomes of the intervention?
2f	Was this reflection followed by an explicit decision on whether or not to proceed through an additional process cycle?
2g	Were both the exit of the researcher and the conclusion of the project due to either the project objectives being met or some other clearly articulated justification?

Table 3. Criteria for the Principle of Theory

3a	Were the project activities guided by a theory or set of theories?
3b	Was the domain of investigation, and the specific problem setting, relevant and significant to the interests of the researcher's community of peers as well as the client?
3c	Was a theoretically based model used to derive the causes of the observed problem?
3d	Did the planned intervention follow from this theoretically based model?
3e	Was the guiding theory, or any other theory, used to evaluate the outcomes of the intervention?

Table 4. Criteria for the Principle of Change through Action

4a	Were both the researcher and client motivated to improve the situation?
4b	Were the problem and its hypothesized cause(s) specified as a result of the diagnosis?
4c	Were the planned actions designed to address the hypothesized cause(s)?
4d	Did the client approve the planned actions before they were implemented?
4e	Was the organization situation assessed comprehensively both before and after the intervention?
4f	Were the timing and nature of the actions taken clearly and completely documented?

Table 5. Criteria for the Principle of Learning through Reflection

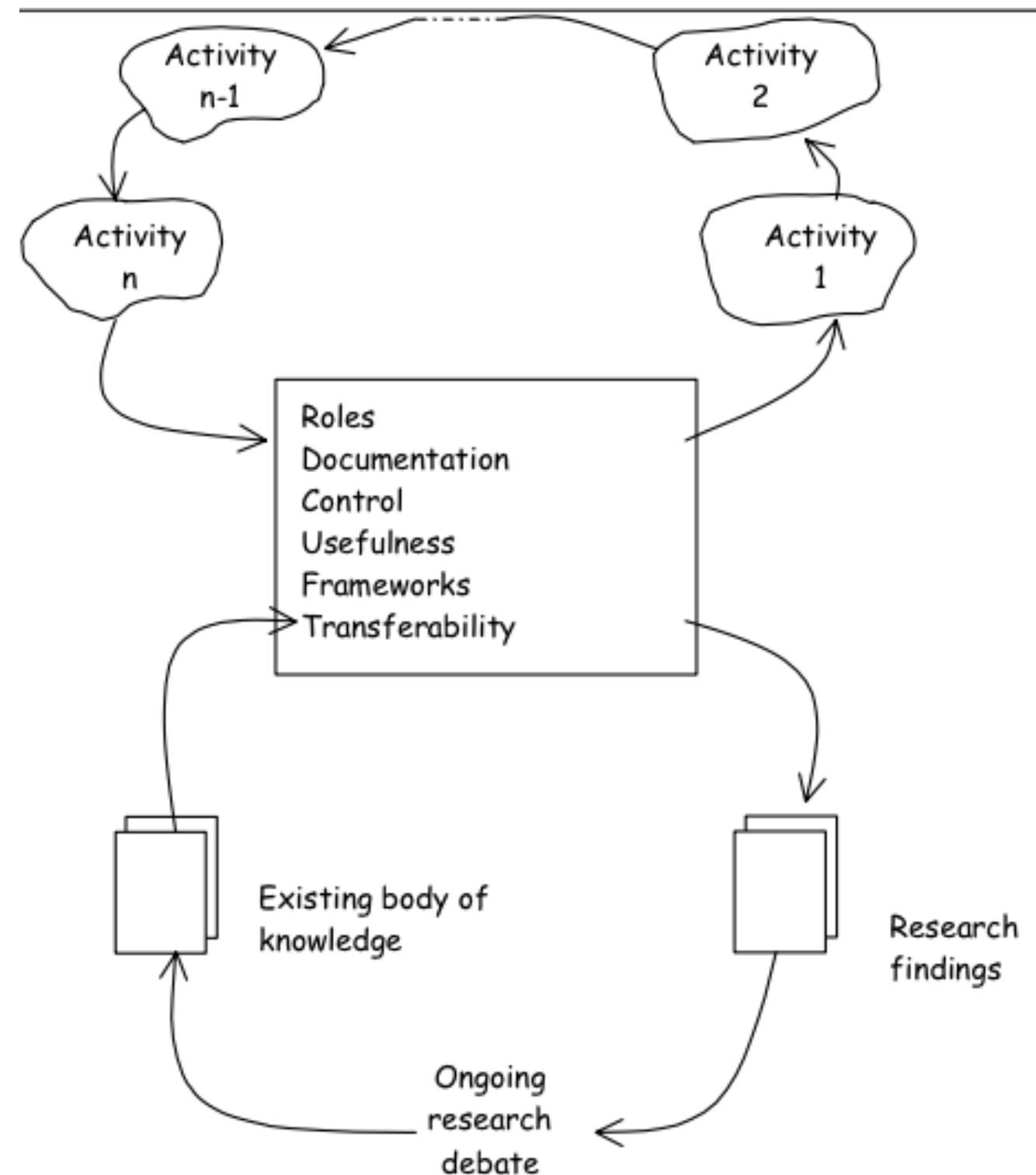
5a	Did the researcher provide progress reports to the client and organizational members?
5b	Did both the researcher and the client reflect upon the outcomes of the project?
5c	Were the research activities and outcomes reported clearly and completely?
5d	Were the results considered in terms of implications for further action in this situation?
5e	Were the results considered in terms of implications for action to be taken in related research domains?
5f	Were the results considered in terms of implications for the research community (general knowledge, informing/re-informing theory)?
5g	Were the results considered in terms of the general applicability of CAR?

... applied by Lindgren et al.

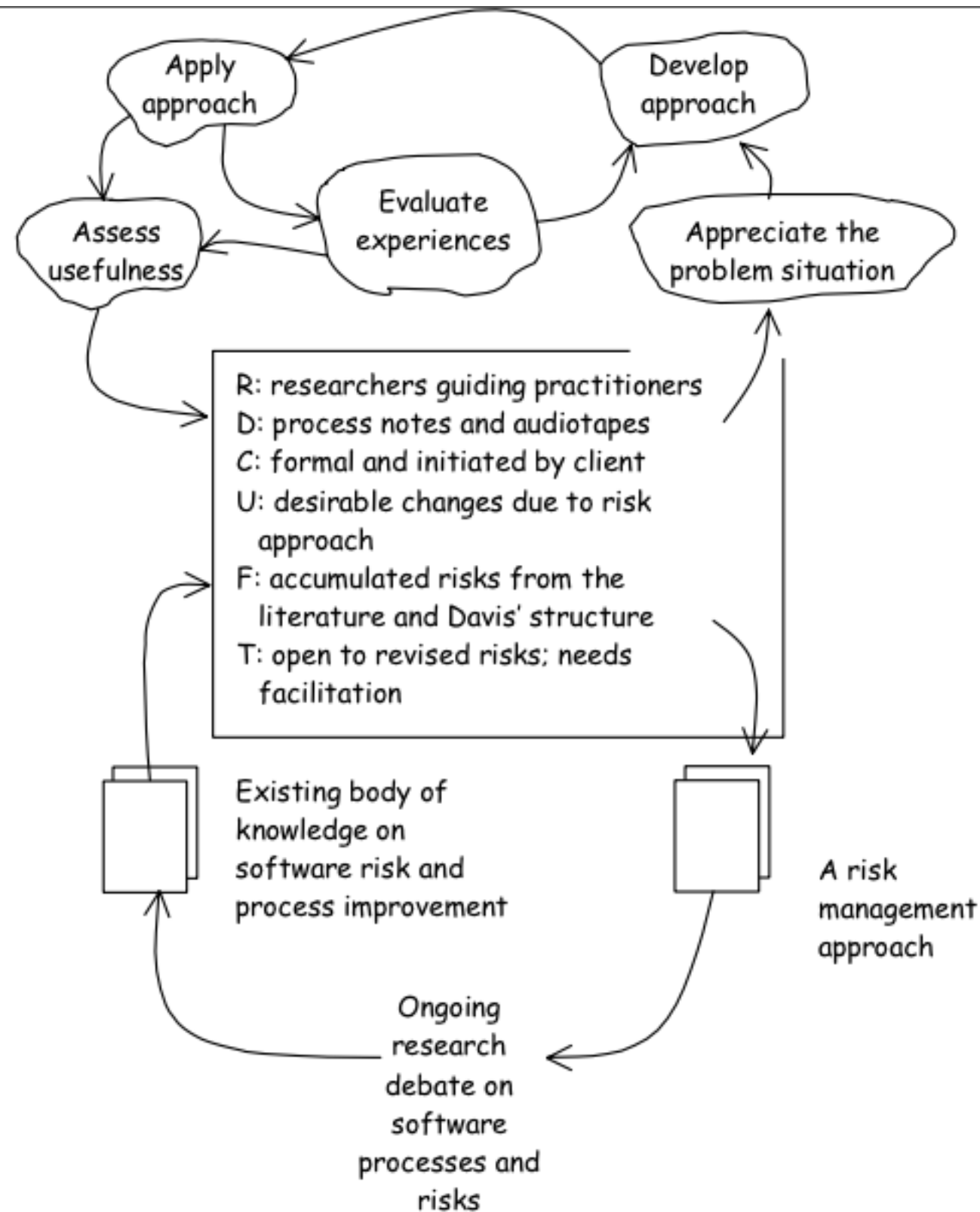
	articulated justification?	continued his relationship with Volvo II as a consultant.
3. The Principle of Theory		
3a	Were the project activities guided by a theory or set of theories?	We relied on an integrative model of competence in organizations including a competence typology and distinctions between job-based and skill-based approaches to HR management as a theoretical basis for this research.
3b	Was the domain of investigation, and the specific problem setting, relevant and significant to the interests of the researcher's community of peers as well as the client?	The research objectives were developed in collaboration with practitioners to ensure that design principles for CMS represented an authentic problem. From an academic point of view, CMS represented an important and under-researched aspect of HR management and the systems that support it.
3c	Was a theoretically based model used to derive the causes of the observed problem?	In action research cycle two, the job-based approach to HR management was applied for understanding the observed problem.
3d	Did the planned intervention follow from this theoretically based model?	Our interventions were guided by our competence typology (competence-in-stock, competence-in-use, and competence-in-the-making), as well as the argument that the skill-based approach to HR management is more conducive to the support of an organization's core competence goals than the job-based approach.
3e	Was the guiding theory, or any other theory, used to evaluate the outcomes of the intervention?	We relied on our competence typology to assess the effectiveness of our intervention in the second action research cycle.
4. The Principle of Change through Action		
4a	Were both the researcher and client	With its mission of applied research, the Viktoria

CPR criteria

- Roles: What are the researcher and practitioner roles and how do they develop over time?
- Documentation: What data are collected to support the problem solving and research goals; how are these data collected; and how is data quality ensured?
- Control: How is the researcher-client relationship established; who exercises authority over the process; and to what degree are formalized control mechanisms adopted?
- Usefulness: How is usefulness of the solution established in the problem situation?
- Frameworks: How are frameworks used to support the study; and how are the results subsequently related to these frameworks?
- Transfer: Under what conditions can the results be transferred to or adapted in other contexts?

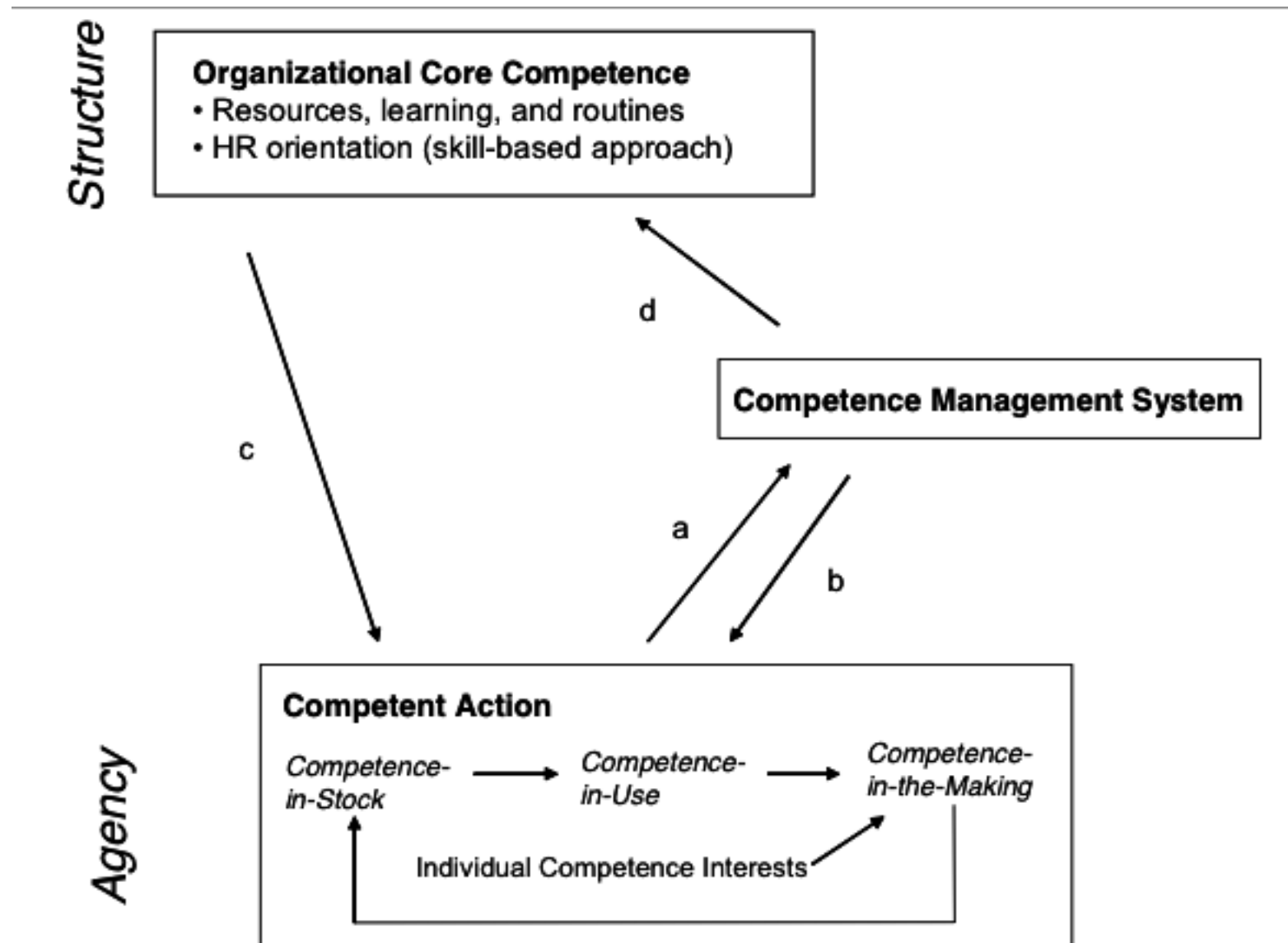


... applied by Iversen et al.



Framework(s)

Framework in Lindberg et al.



Frameworks (F_A) in Iversen et al.

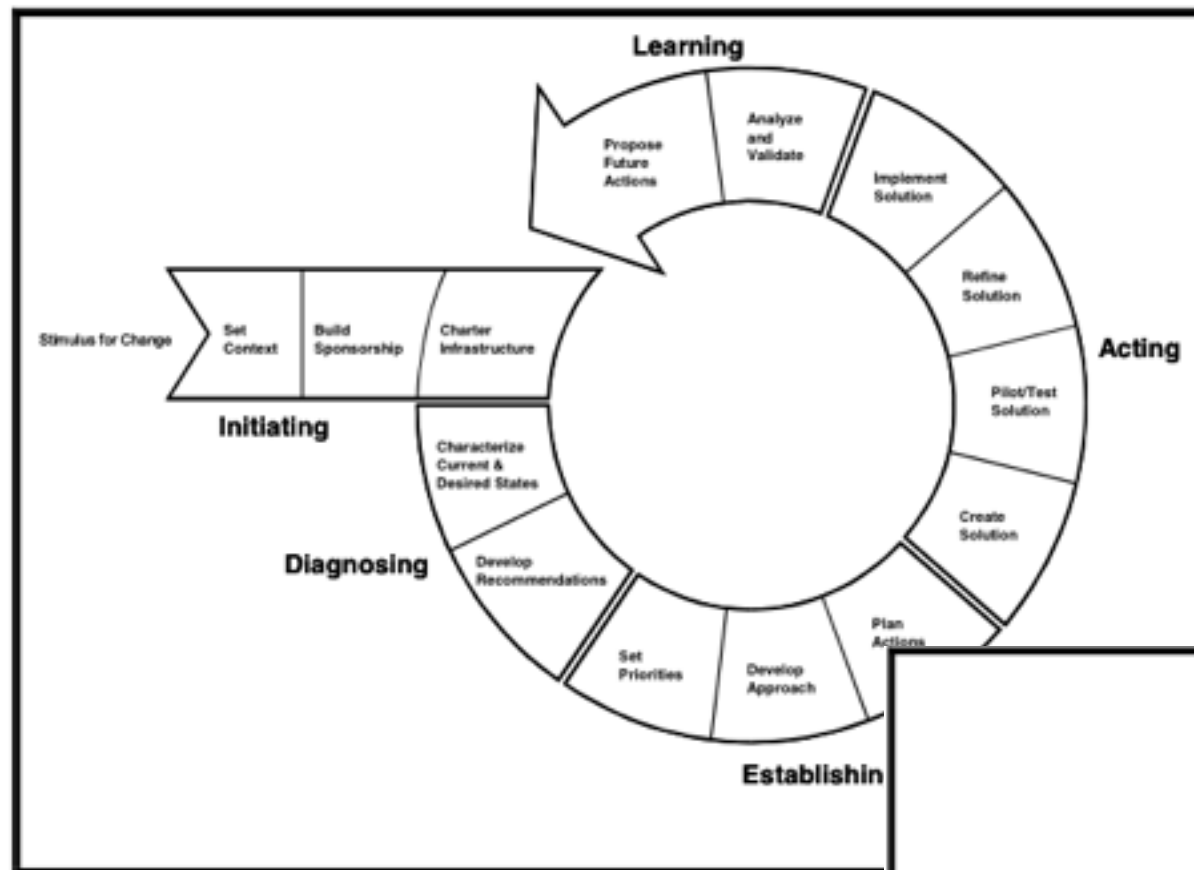
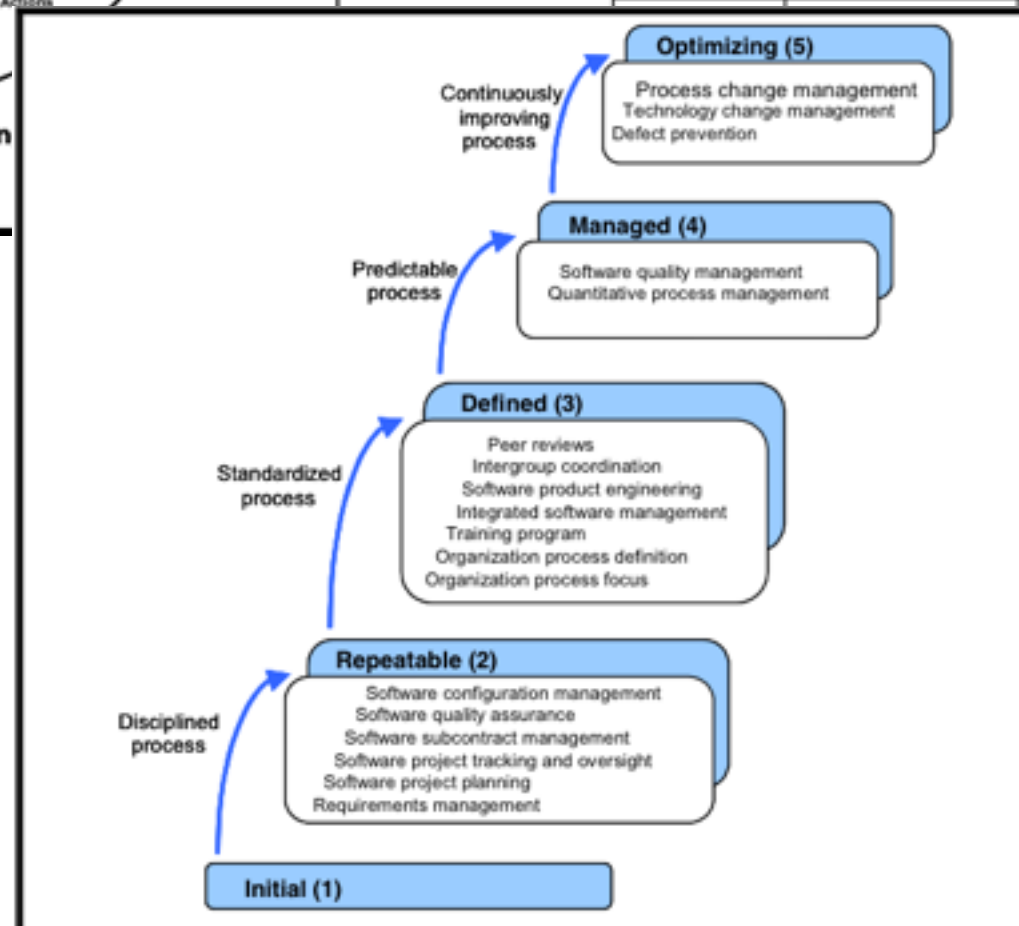


Table 1. Four Types of Approaches to Software Risk Management

Type of Approach	Characteristics	Assessment	Exemplars
Risk list	A list of prioritized risk items	+ Easy to use + Easy to build + Easy to modify + Risk appreciation - Risk resolution - Strategic oversight	(Barki et al. 1993; Keil et al. 1998; Moynihan 1996; Ropponen and Lyytinen 2000)
Risk-action list	A list of prioritized risk items with related resolution actions	+ Easy to use + Easy to build + Easy to modify + Risk appreciation + Risk resolution - Strategic oversight	(Alter and Ginzberg 1978; Boehm 1991; Jones 1994; Ould 1999)
Risk-strategy model	A contingency model that relates aggregate risk items to aggregate resolution actions	+ Easy to use - Easy to build - Easy to modify + Risk appreciation + Risk resolution + Strategic oversight	(Donaldson and Siegel 2001; Keil et al. 1998; McFarlan 1981)
		+ Easy to use + Easy to build + Easy to modify + Risk appreciation + Risk resolution + Strategic oversight	(Davis 1982; Mathiassen et al. 2000)



Types of frameworks - Mathiassen et al. 2012

- F :: the conceptual framing helps structure actions and analyses
- F_A :: specific concepts found in the literature about A
- F_I :: the general concepts used to inform studies independent of A

F_I

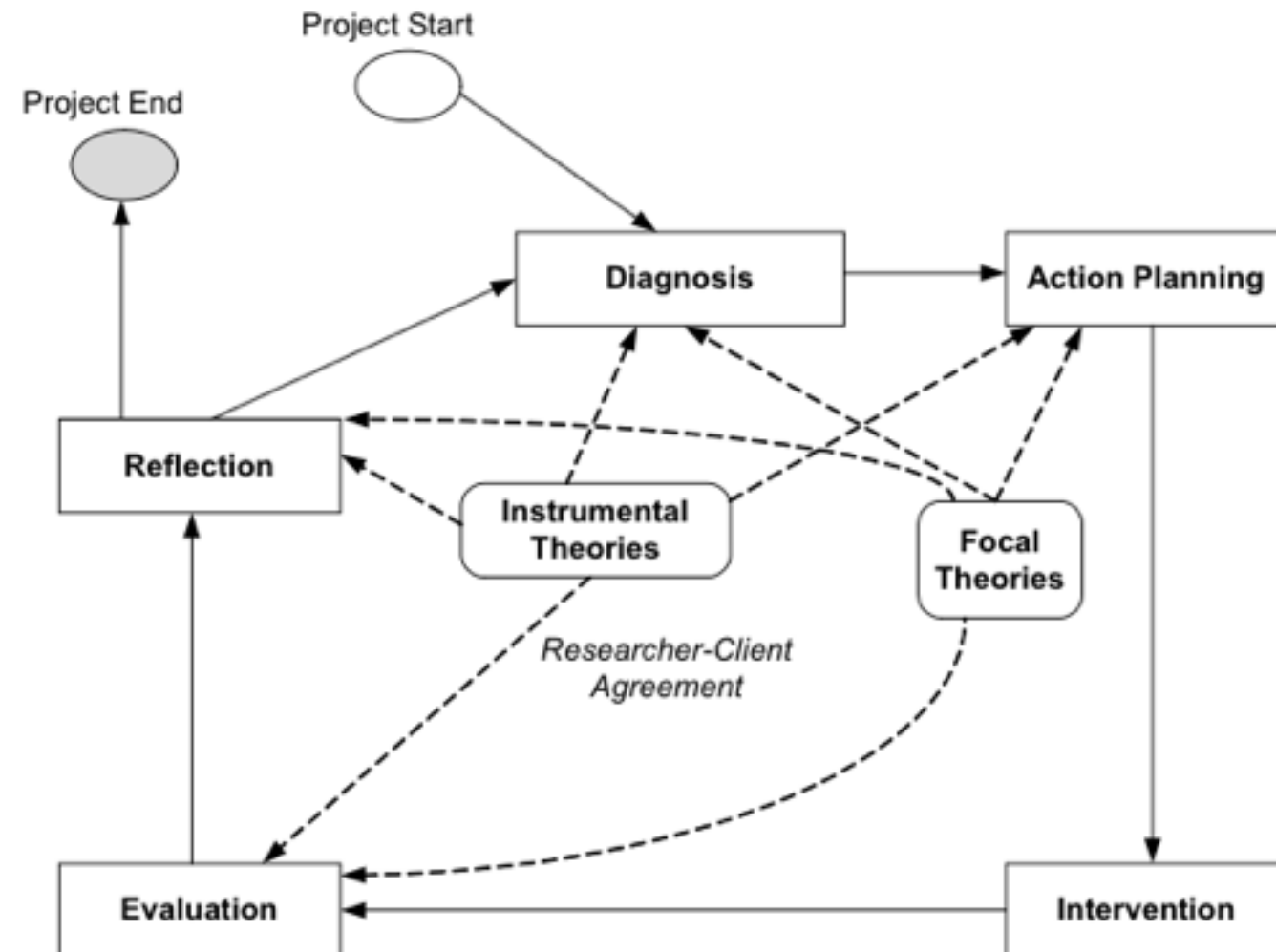
Table 1. Perspectives on innovations in organizations

	Individualist	Structuralist	Interactive process
Basic assumptions	Innovation is caused by rationally acting individuals	Innovation is determined by objectively existing independent structural characteristics	Innovation is produced over time by the interaction between the actions of individuals, structural influences and the innovation itself
Core concepts	Leader Champion Entrepreneur Innovator Change agents	Size Differentiation Complexity Specialization Professionalism Formalization Centralization Environment	Contents Social context Innovative capability Social relations Proliferation Social infrastructure History Shocks Social process Political perspective Distribution of power Autonomy vs. control Cultural perspective Stakeholders' interaction Subcultures' interaction
Conceptualization of an innovation	An innovation is a static object or practice which is defined objectively	An innovation is a static object or practice which is defined objectively	The contents of an innovation is subjectively perceived and constantly reinvented and reconfigured
Conceptualization of the innovation process	Innovation is seen as a simple, linear process with focus on the adoption stage	Innovation is seen as a simple, linear process with focus on the adoption stage	Innovation takes place in a complex social process in which political and cultural aspects play an important role

Types of frameworks

- Davison et al. 2012

- Instrumental theory :: An instrumental theory is used to explain phenomena (Angeles 1992), including those processes and tools that are used to establish and verify focal theories
- Focal theory :: A focal theory provides the intellectual basis for action-oriented change in a CAR project.



Group assignment

- In groups (3-4)
- Develop/design/declare specific frameworks as well as criteria for PhD studies in the group - one at a time
- A first draft should be possible in 15-20 minutes, then move on to the next
- If time allows return to revise the first drafts