Retaining knowledge from ageing employees.
A structured comparison of six KM interventions.

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Abstract:
The coming decades, the baby boomers (born between 1946 and 1965) are going to retire. This retirement wave will cause a loss of knowledge for organizations and thus threatens the organization's ability to make knowledge productive and thus competitiveness. As knowledge management (KM) is the formal discipline that aims at improving knowledge productivity, knowledge management seems to be the discipline to provide the solutions to this problem.
Although KM literature provides ample solutions, hardly anything has been said about the applicability and the effectiveness of these solutions in the context of retaining knowledge from retiring employees. Therefore, the objective in this research is to make a structured comparison of six KM interventions that are used in practice to retain knowledge from retiring employees (Modeling, Leaving expert interview, File-transfer protocol, Master-apprentice relation, Individual gap analysis, and Knowledge recall). This comparison is based on the four components of the CIMO-logic that is used in design-based research, which implies that this study contains information on what to do (I), in which type of situations (C), to produce what effect (O), and it offers some understanding of why this happens (M).
Based on the comparison, this study discovered that the CIMO-logic of the six different interventions demonstrated many similarities, which resulted in the formulation of an overall CIMO-logic. In addition, based on the differences, we also formulated three distinctive CIMO-logics for File-transfer protocol, Master-apprentice relation, and Individual gap analysis.
Important finding of this study is that the six KM interventions seem to fit the target group (retiring employees) very well, because they anticipate on the desire to round off and hand over. Another important finding in this study is that retaining knowledge from retiring employees is not only beneficial to the organization, but also to the retiring employee himself. From a methodological point of view, important finding of this study is that the CIMO-logic provides a valuable framework for revealing the similarities and differences between different management interventions.

Keywords:
Ageing, knowledge management interventions, knowledge retention, CIMO logic

1. Introduction

The coming decades, the baby boomers (born between 1946 and 1965) are going to retire. This retirement wave will cause a loss of knowledge for organizations and thus threatens the organization's ability to make knowledge productive and thus competitiveness. "Lost knowledge means the decreased capacity for effective action or decision making in a specific organizational context" (DeLong, 2004, p.21). As knowledge management (KM) is the formal discipline that aims at improving knowledge productivity (Stam, 2007), knowledge management seems to be the discipline to provide the solutions to this problem. Although KM literature provides ample solutions, hardly anything has been said about the applicability and the effectiveness of these solutions in the context of retaining knowledge from retiring employees (Stam, 2009). Therefore, the objective in this research is to make a structured comparison of the effectiveness of different KM interventions that are used in practice to retain knowledge from retiring employees. This comparison contributes to the knowledge about how to retain knowledge from older employees and serves as a starting point for further testing and grounding of KM interventions related to ageing.

In this paper I will first describe the methodology of this research. Then I will give a brief introduction into ageing from a KM perspective. Next I will make a structured comparison of six interventions that are used in practice and that aim at retaining knowledge from retiring employees. Finally I will draw up the main conclusions and make some suggestions for further research.

2. Methodology

The aim of this research is to make a structured comparison of the effectiveness of six different KM interventions (unit of analysis) that are used in the context of retaining knowledge from retiring employees. As these KM interventions are *solution concepts* or *design propositions*, the structured comparison in this research will be based on the CIMO-logic (Denyer, Tranfield, & Van Aken, 2008), which is core to Design-Based Research (Van Aken, 2004, 2005, 2007).

This comparison of KM interventions is based on semi-structured interviews with four knowledge managers in different organizations (ministry of finance, ministry of social affairs, a defense systems provider and a transport maintenance organization) and two knowledge management consultants in The Netherlands. All interviewees were involved in the implementation of one or more KM interventions in the context of retaining knowledge from retiring employees.

In order to be able to make the CIMO comparison, the structured part of the interview followed the main components of the CIMO logic (Context, Intervention, Mechanism, Outcome). The assessment of the effectiveness of the interventions in relation to retaining knowledge from retiring employees is based on the perception of the effectiveness in this context by the interviewees. In order to evaluate the validity of the data, a detailed report of the interview was send to the interviewee for a member check (Lincoln & Guba, 1985). After gathering all the data, a cross-case analysis was performed based on a word table (Yin, 2003).

The organizations that participated in this research were selected from the personal network of the researcher. Main criteria for inclusion was that the case-organization explicitly made a connection between a KM intervention and retaining knowledge from retiring employees.

3. Ageing from a KM perspective

One of the consequences of the current demographic development of ageing is that the coming years, large numbers of our most experienced workers are going to retire. From a KM perspective this retirement wave implies loss of knowledge (DeLong, 2004; Stam, 2009). "As employees get older and retire, businesses can face significant losses of critical knowledge and skills, as well as decreased productivity"

(Strack, Baier, & Fahlander, 2008, p.120), which threatens competitiveness. Organizations are facing a 'knowledge retention crisis' and corporate knowledge is 'at risk' (Casher & Lesser, 2004).

The ageing of the working population gives a new dimension to knowledge management (Kannan & Madden-Hallet, 2006) and knowledge retention is considered to be the main knowledge management challenge in the next decades. "In managerial practice, the important issue in respect of knowledge management and learning is the retention and intergenerational transfer of important know-how and skills" (Streb, Voelpel, & Leibold, 2008, p.4). If knowledge is not transferred from the older to the younger generation, knowledge will disappear which can have disastrous consequences. "The costs can be tremendous when the impacts of lost knowledge are unanticipated" (DeLong, 2004, p.27). Therefore, we should try to reduce the risk of losing critical knowledge.

As far as (knowledge management) literature explicitly relates solutions to the problem of retaining knowledge from retiring employees, a wide variety of solutions is suggested. Several sources suggest to make a knowledge inventory in order to make a gap-analysis (Schwartz, 2006), a risk assessment (Strack et al., 2008), a succession plan (Kaye & Cohen, 2008) or knowledge retention plan (Brandel, 2008; DeLong, 2004). Others suggest interventions that focus on codification (Joe & Yoong, 2006), personalization (Arnone, 2006) or a combination of solutions (Brandel, 2008; Fisher, 2005).

As KM literature does not explicitly address the effectiveness of these interventions related to the problem of ageing, the following sections systematically addresses their effectiveness with regard to retaining knowledge from retiring employees.

4. Retaining knowledge from retiring employees

This section provides a structured comparison of six interventions that are used in practice to retain the knowledge from retiring employees. The structure of the comparison is based on the CIMO-logic that is used in Design-Based Research (DBR). Before comparing the different KM interventions, this section first elaborates on the different elements in the CIMO-logic.

4.1 CIMO-logic

The KM interventions that are compared in this research can be considered prescriptive knowledge in the form of solution concepts. A solution concept is an instruction to perform a finite number of acts in a given order and with a given aim in a certain field of application (Van Aken, 2004). Based on Bunge (1967) and Pawson and Tilley (1997), Denyer et al. (2008) suggest to construct solution concepts following the CIMO-logic. The components of this logic can be described as follows:

> *Context (C)*
> Context refers to the environment the intervention has been designed for (Denyer et al., 2008). With regard to the environment, distinction can be made between the *class of problems* and the *class of contexts*. The former refers to the type of problems the intervention aims to solve (e.g. loss of knowledge due to retirements), the latter refers to the type of situation the intervention has been designed for (e.g. organizations that largely depend on critical knowledge).

> *Intervention (I)*
> The intervention is the key component of a solution concept (Denyer et al., 2008). It is an instruction to perform a finite number of acts in a given order and with a given aim (Van Aken, 2004). Examples of interventions are *Leaving expert interviews* or *Master-apprentice relations*. As each situation is different, the intervention should not be considered a solution as such, but a template (concept or proposition) for the creation of a solution within a particular context.

Mechanisms (M)

The mechanism refers to the generative mechanism(s) that is/are triggered by applying the intervention (Denyer et al., 2008). According to Tsoukas and Knudsen (2005), mechanisms show how the intervention and the outcome are linked together. E.g. File Transfer Protocol (I) reduces the time needed to take over a task (O), because it reduces the available information to the essence (M). In other words, a mechanism is the answer to the question 'why does this intervention produce this outcome?'

Outcomes (O)

Outcome refers to the effect that can be expected by applying the intervention in a particular context. When designing an intervention, outcomes are formulated as functional requirements or performance requirements (Andriessen, 2004). Examples of outcomes are 'improved knowledge sharing' or 'awareness about the value of knowledge'.

Together, the CIMO-logic is constructed as follows: "in this class of problematic Contexts, use this Intervention type to invoke these generative Mechanism(s), to deliver these Outcome(s)" (Denyer, pp. 395-396). Solution concepts that follow the CIMO-logic contain information on what to do (I), in which type of situations (C), to produce what effect (O) and offer some understanding of why this happens (M). In order to accommodate professionals to translate a solution concept to its specific context of application, it usually takes the form of a thick description (Van Aken, 2004). However, the CIMO-logic itself constitutes only the logic of the solution concept, not its specific form (Denyer et al., 2008). As we are particularly interested in the effectiveness of interventions that aim at retaining knowledge from retiring employees, this research does not focus on the form of the intervention, but on the logic of the intervention. The CIMO-logic seems to provide a valuable framework for making this comparison.

4.2 Structured comparison of six KM interventions

The aim of this section is to make a structured comparison of KM interventions that aim at retaining knowledge from retiring employees. Before making the comparison based on the CIMO-logic, the six interventions are briefly introduced.

4.2.1 Six KM interventions

This section briefly introduces the KM interventions that were compared in this research. As the focus of this research is on the logic, the description is limited to the essence of the interventions. As stated above, the criterion for selection of the intervention was that they were applied to retain knowledge from retiring employees.

File transfer conversation

A File transfer conversation is an intervention applied by the Dutch Ministry of Finance and aims at transferring knowledge related to one particular task, project or subject. Starting point of this intervention is that, despite the fact that a file contains a lot of documents with detailed information, the essence of the file often remains implicit. A File transfer conversation helps to make the essence of a file explicit. The result of applying this intervention is a brief guidance for using the file (e.g. containing a list of priority issues, reusable material, lessons learned). The design of this intervention is inspired by appreciative inquiry (Bais, 2008; Srivasta & Cooperrider, 1990).

Leaving expert interview

A leaving expert interview (LEI) is an intervention that is applied by the Dutch Ministry of Finance to transfer tacit knowledge. The aim of this intervention is to identify critical experiences and transfer these experiences directly from leaving experts to those that remain behind. As the focus of this intervention is on direct (person to person) knowledge transfer, the result is limited to transfer of tacit knowledge between those employees involved in the application of the intervention. The design of this intervention is inspired by appreciative inquiry (Bais, 2008; Srivasta & Cooperrider, 1990).

Modeling
Modeling is an intervention that is applied by the Dutch Ministry of Social Affairs and the Dutch Ministry of Finance. Starting point of this intervention is that many smart strategies for solving problems can be used more effectively by making them explicit. Modeling is an intervention that maps successful patterns of working in such a way that it can be imitated by others. The result of applying this intervention is a model for solving a particular type of problem. In this model, complex activities are divided into small and logic tasks. This intervention was developed as a Neuro-linguistic programming (NLP) technique (Bandler & Grinder, 1975).

Expert-apprentice relation
The Expert-apprentice relation is an intervention that aims to produce learning effects through knowledge sharing between a senior and a junior participant in a certain knowledge domain (Brockmöller, 2008). The idea of this intervention is that when a novice is placed in the vicinity of an expert, the novice can watch the master at work and be trained in practice. The result of applying this intervention is that both the apprentice and the master gain new knowledge. The intervention used in this study (C4 protocol) is based on the concept of situated learning (Lave & Wenger, 1991) and knowledge management literature (Krogh, 2002; Weggeman, 1997), and its effectiveness has been tested systematically in many organizations (Brockmöller, 2008).

Individual GAP analysis
The individual GAP analysis is an intervention that is used by the Dutch subsidiary of Thales, a (defence) systems provider. The objective of this intervention is to determine 'critical job loss' by tracing knowledge (among leaving experts) that is both critical and strategic. Critical is defined as company specific, complex and scarce. Strategic means that the knowledge is vital for future business (Stoffer, 2009). The result of this intervention is a list of actions to be taken to retain critical knowledge. This intervention is based on the work by DeLong (2004) and has been tested systematically within Thales (Grootveld & Van der Hulst, 2007; Grootveld, Van der Hulst, Kostermans, & Mulder, 2006).

Knowledge recall
Knowledge recall is an intervention that has been applied by a technical department of a maintenance organization in the transport sector. The aim of this intervention was to recall critical tacit knowledge from an employee that had already retired through codification of his specific way of working. Important element of this intervention was to reveal the (tacit) underlying logic related to (explicit) solutions and procedures. The result of applying the intervention was a description of the tacit knowledge of a retired employee. The intervention was developed and tested by an external consultant.

4.2.2 Comparison of CIMO-logic of six KM interventions
This comparison of KM interventions is based on a series of semi-structured interviews with knowledge managers and knowledge management consultants in different organizations. After performing a member

check, a cross-case analysis was performed based on a word table (Appendix 1). In this section the six different interventions are compared per component of the CIMO-logic.

Context of application (C)
When considering the context of application, distinction should be made between the type of organization (department, business unit, project) for which the intervention has been designed and the type of problem for which the intervention has been designed.
With regard to the type of organization we found a series of different characteristics, related to size, the nature of work, complexity and personnel turnover. However, the main distinction between the different interventions seems to be those interventions that are designed for organizations with a high degree of implicit ways of working (File transfer conversation, Modeling), and those interventions that are designed for organizations that want to secure critical knowledge (Leaving expert interview, Expert-apprentice relation, Individual GAP analysis, Knowledge recall). Critical knowledge refers to knowledge that is company specific (not easily available outside the organization), complex (requires much time to acquire/to learn) and scarce (not widely spread within the company).
As KM is about improving knowledge processes, the type of problems the interventions are designed for should be related to one or more of these processes. In the description of the types of problems these interventions solve, we found references to the processes of knowledge transfer (Modeling, File Transfer conversation, Leaving expert interview, Expert-apprentice relation and knowledge recall), development (Modeling, Expert-apprentice relation) and identification (Individual GAP analysis). By far the majority of the interventions (5 out of 6) aims at improving the process of knowledge transfer.

Type of interventions (I)
The intervention (or method, or protocol) is the core component of the CIMO-logic. It has been described as an instruction to perform a finite number of acts in a given order and with a given aim (Van Aken, 2004). As this research focuses on the underlying logic, this comparison is limited to the nature of the intervention.
Based on Hansen et al. (1999), distinction can be made between those interventions that are designed to codify knowledge, so that it can be stored in databases and transferred to others (Modeling, Individual GAP analysis, Knowledge recall), and those interventions that are designed to share knowledge through person-to-person contact (File transfer conversation, Leaving expert interviews, Expert-apprentice relation). The former type of interventions are referred to as 'codification' interventions, the latter as 'personalization' interventions.

Generative Mechanisms (M)
The mechanism refers to the generative mechanism(s) that is/are triggered by applying the intervention (Denyer et al., 2008). The effect of the intervention is caused by the mechanism. In other words, the mechanism is the linking pin between intervention and outcome.'
Analysis of the mechanisms that are triggered by the six KM interventions reveals that distinction can be made between *distinctive* and *shared* mechanisms. Distinctive mechanisms are mechanisms that are typical for one particular intervention. Shared mechanisms are (similar types of) mechanisms that all interventions have in common. When comparing the mechanisms, it is striking that all interventions trigger several shared mechanisms. In addition, some interventions also trigger distinctive mechanisms. Examples of distinctive mechanisms are "because it reduces the complexity of a file to the essence" (File transfer protocol) and "because it is an intense relation" (Master-apprentice relation). Mechanisms that are triggered by all interventions are:
-   because it enables reflection

- because it enables cooperation/communication
- because older employees feel free to share knowledge
- because it anticipates on the implicit aspirations of older employees
- because of the formal nature of the intervention

In Table 1, these shared mechanisms are related to the outcomes.

Outcome (O)
Outcome refers to the effect that can be expected by applying the intervention in a particular context. Distinction can be made between *direct* and *indirect* outcomes. Direct outcomes are the effects of which the intervention is the immediate cause (first-order effects). They are observable during, or immediately after, implementing the intervention. Indirect outcomes are the effects that are caused by the direct effects (second-order effects). They are not directly related to the intervention, can only be observed after some time and are influenced by more factors than the intervention only. E.g., Modeling directly causes more awareness about the way the work is done (direct effect), and indirectly causes entrepreneurship (indirect effect). As most interviewees had difficulties with identifying indirect effects, this research focuses on the direct effects.

Another distinction that can be made is, analogue to the mechanisms, the distinction between *distinctive* and *shared* outcomes. Again it is striking to see that the interventions predominantly cause shared (similar type of) outcomes. Only some interventions also cause distinctive outcomes. Example of a distinctive outcome is increased personal effectiveness (Expert-apprentice relation). Outcomes that are caused by all interventions are:

- increased awareness of personal effectiveness of all participants
- improved knowledge sharing between participants
- helps leaving employee to let go
- older employees feel appreciated and respected
- increased awareness of value of knowledge and importance of KM

In Table 1 these shared outcomes are related to the shared mechanisms.

Relationship between shared mechanisms and shared outcomes
Based on the structured comparison of the mechanisms and outcomes, we discovered that distinction can be made between distinctive and shared mechanisms and outcomes. When analyzing the relationship between the shared mechanisms and outcomes, we discovered three types of relationships (Table 1). First a simple relationship: one type of outcome (increased awareness) is caused by one mechanism (enables reflection), which can be caused by many interventions. Second a relationship that is characterized by a complex of mechanisms: one type of outcome (improved knowledge sharing) is caused by a complex of mechanisms (a.o. enables communication), which can all be triggered by many interventions. Third a relationship that is characterized by a complex of outcomes: different outcomes (a.o. helps leaving employee to let go) are caused by one type of mechanism (formal nature of intervention), which can be triggered by many interventions.

Table 1: relationship between shared mechanisms and shared outcomes

Interventions for retaining knowledge from older employees	Shared mechanisms	Shared outcomes
	- because it enables reflection	- increased awareness of personal effectiveness of all participants
	- because it enables cooperation/communication	- improved knowledge sharing between participants

	- because older employees feel free to share knowledge - because it anticipates on the implicit aspirations of older employees	
	- because of the formal nature of the intervention	- helps leaving employee to let go - older employees feel appreciated and respected - increased awareness of value of knowledge and importance of KM

5. Conclusions

The aim of this research was to make a structured comparison of the effectiveness of different KM interventions that are used in practice to retain knowledge from retiring employees. The comparison was based on the four components of the CIMO-logic, which implies that this study contains information on what to do (I), in which type of situations (C), to produce what effect (O), and it offers some understanding of why this happens (M).

Based on the many similarities in the logic of the different interventions, it seems justifiable to formulate an overall CIMO statement, which covers the logic of all interventions that are used to retain knowledge from retiring employees and that are included in this research. This overall CIMO-logic should be formulated as follows:

> In order to improve knowledge sharing in case of approaching retirement, to increase the awareness of the effectiveness of the people taking over and to help leaving employees to let go (O), in an organization (unit, department) that is to a large extent dependent on critical knowledge (company specific, scarce, complex) and/or implicit ways of working (C), the interventions as described in this study might help (I), because they enable self-reflection and communication, because they anticipate on the implicit aspirations of older workers to share knowledge, and because of the formal nature of the intervention (M).

In addition, the comparison of the KM interventions also revealed several distinguishing CIMO-logics. These CIMO-logics could be formulated as follows:

> In order to reduce the time that is needed to take over a file (O), in an organization that is to a large extent dependent on implicit ways of working (C), File-transfer conversation might help (I), because it reduces the complexity of a file to the essence (M).

> In order to increase the effectiveness of employees (O), in an organization that is to a large extent dependent on implicit ways of working (C), Expert-apprentice relation might help (I), because it supports the process of learning (M).

> In order to acquire insight in the loss of knowledge as a consequence of approaching retirement (O), in an organization that is to a large extent dependent on critical knowledge and implicit ways of working (C), Individual gap-analysis might help (I), because retiring employees are not afraid of weakening their position by sharing knowledge (M).

Important finding of this study is that the six KM interventions seem to fit the target group (retiring employees) very well, because they anticipate on the desire to round off and hand over. However, based on the above CIMO-statements, the interventions do not only seem to be suitable in retirement situations, but also in situations where employees change positions within the organizations, or where employees leave the organizations for other reasons than retirement. Furthermore, although the interventions were predominantly used to retain knowledge, they also appeared to contribute to the enhancement of other knowledge processes like identifying knowledge and developing knowledge.

Another important finding in this study is that retaining knowledge from retiring employees is not only beneficial for the organization, but also to the retiring employee himself. In most of the cases, the retiring employee learned as much as other employees that were involved. In addition, the formal and appreciative nature of these interventions makes the retiring employee feel valuable and respected. Even in cases that merely aimed at making knowledge explicit, these important implicit effects were noted.

From a methodological point of view, important finding of this study is that the CIMO-logic, as suggested by Denyer et al. (2008), provides a valuable framework for revealing the similarities and differences between different management interventions. As many interventions aim at similar effects, management needs more information (in particular about the context and the intervention itself) to be able to select the appropriate intervention. The CIMO-logic provides an effective framework for displaying the required information.

6. Further research
In this study we have reconstructed and compared the CIMO logic of different KM interventions that are used in practice to retain knowledge from retiring employees. Further research should focus on systematically testing these statements using pragmatic validity (Denyer et al., 2008; Worren, Morrell, & Elliott, 2002).
With regard to the KM interventions, important elements that influence the effectiveness of the intervention are corporate epistemology and the interventionist (Stam, 2007). Further research should integrate these elements in assessing the effectiveness of the respective interventions.

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Appendix 1: Comparison of six interventions aiming at knowledge retention

Method	Context (C)	Intervention (I)	Mechanism (M)	Outcome (O)
Modeling	**Organization**: can be any (part of an) organization >20. **Problem(s)**: risk reduction, organization development, personal development, market development.	1. determine the scope 2. explore the model by using metaphors 3. how does it work exactly? 4. make inventory of golden rules 5. make a process description	Because this intervention makes people aware of their (implicit) way of working, which results in increase of confidence and makes it possible to search for new fields of application.	**Direct**: explicit transferable knowledge about how the work is done; increase of self-respect; increased awareness about how the work is done; better communication about how the work is done **Indirect**: market development; stimulates entrepreneurship
File transfer conversation	**Organization**: in organizations with clearly defined files; in case the files are complex, in situations in which files are transferred frequently. **Problem**: a file has to be transferred from one to another employee.	1. preparation of conversation and selection of crucial material 2. execution: conversation with focus on re-usable material and lessons learned 3. follow up: dissemination of the report through publication (and/or presentation)	Because the complexity of the file is reduced to the essence; cross usage of knowledge; the formal nature of the method helps the older employee to let go; it stimulates self-reflection; employee feels free to share knowledge (now he is retiring); the network is transferred to the new owner.	**Direct**: a kick start for person taking over file; increased effectiveness; reflection on work; let go of file **Indirect**: more conscious of importance of KM.
Leaving expert interview	**Organization**: in knowledge intensive (parts of) organizations that are dependent on complex tacit knowledge. **Problem**: an employee with scarce, crucial, complex knowledge leaves the company.	1. preparation: what is the focus? 2. execution: determine the scope, analyze concrete events and search for underlying patterns/models/ assumptions/etc. 3. follow up: make report and disseminate	Because the employee feels free to share knowledge (now he is going to retire); the method forces to reflect on personal effectiveness; the method makes participants aware of their abilities; the formal nature of the method helps employees to let go.	**Direct**: awareness of own behaviour and skills; awareness of personal (in)capabilities; increase self-esteem of leaving employee; better understanding of interviewers **Indirect**: increase effectiveness of all participants; participants are more aware of value of knowledge
Expert-apprentice relation	**Organization**: organization largely depends on tacit knowledge which is concentrated with one or a few employees, and which cannot be easily replaced or transferred. **Problem**: an expert with crucial knowledge intends to leave the organization; a less experienced employee needs to be trained; the organization wants to create new knowledge (innovate)	1. Composing: identify the need, define the goal and match expert and appr. 2. Connecting: develop the relation to such a level that knowledge can be shared at an optimal level 3. Culminating: expert and apprentice engage in deliberate observation, practice and reflection 4. Completing: evaluating results and determining future action	Because it is an intense relation; because they are brought together and share a common purpose; because they are 'forced' to cooperate; because the relation has a formal character; because it is appreciative; it anticipates on the (implicit) aspirations of older employees in the final stage of their career.	**Direct**: implicit knowledge has been made explicit (organization); appreciation of the knowledge of the master; increased personal effectiveness (apprentice). **Indirect**: people become more aware of tacit knowledge for the organization; more awareness about importance of sharing knowledge.

Method	Context (C)	Intervention (I)	Mechanism (M)	Outcome (O)
Individual gap-analysis	**Organization**: organization with business specific, complex and scarce knowledge **Problem**: critical knowledge threatens to get lost, because employees are leaving/moving; an employee is leaving and it is unknown what knowledge will get lost	1. Interview: determine to what extent knowledge is critical and strategic 2. Report about knowledge that should be retained 3. Review of knowledge loss by responsible resource manager 4. Decide about actions to be taken 5. Execution of actions	Because the organization shows that knowledge retention is important; it anticipates on the desire of older employees to round off and hand over their work; retiring employees are prepared to share knowledge (it is not threatening anymore); employees are forced to reflect.	**Direct**: leaving employee feels appreciated; insight in loss of critical knowledge; an action plan for retention of critical knowledge; efficiënt utilization of retiring employee. **Indirect**: more cooperation; increased attention for KM; more awareness about value of knowledge and the cost of knowledge retention.
Knowledge recall	**Organization**: organization that is to a large degree dependent on implicit ways of working **Problem**: employee with critical knowledge about business processes has retired	1. Interviews: codify tacit knowledge of employee that has left the organization 2. Make knowledge accessible for others 3. Transfer knowledge through master classes and workshops	Because it enables reflection; because it enables communication about ways of working between employees.	**Direct**: transfer of tacit knowledge from interviewee to interviewer; increased awareness about own (implicit way of working; better insight in main KM problem; awareness about importance of knowledge and KM for the organization; increased commitment for KM.