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Open Reflection Cycle.

A Knowledge Management Method Supporting Reflective Learning

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Open Reflection Cycle (ORC). A Knowledge Management Method Supporting Reflective Learning

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Abstract:

In many domains of policies, management and planning processes etc. it has become very popular to praise „learning from best practices“. This ZSI DP reports from a very successful attempt to „learn from worst practice“. Individuals are told quite often „mistakes make you knowledgeable“. However, in the public, and particularly in regard of organisational learning, it is usually off-limits to even mention worst practices or institutional failures. The development and testing of ORC proofs that theory and practice may be mutually prolific. Preconditions can be set to avoid conflicts or other negative impact when worst practise is dealt with in group work, facilitating the acquisition of knowledge from mistakes without punishment. ORC is a new form of „people-track knowledge management“ (as opposed to „IT-track KM“), based on the well-established KM methodology of „After Action Review“.

1. Introduction

Knowledge Management (KM) is often associated with implementing complex information systems and costly business-process reengineering programmes. Data warehousing, corporate yellow pages and Intranets and many similar tools are thought to be the ultimate solutions for managing knowledge. In fact, however knowledge management is about changing people's attitudes towards learning and communicating within organisations.

Karl-Erik Sveiby distinguishes two tracks of activities concerning knowledge management¹:

- *IT-Track KM* where knowledge is handled within information systems as an object
- *People-Track KM* where knowledge is handled as a process, a complex set of dynamic skills, know-how etc.

The first track has gained much more publicity than the second one. Consequently, corporate knowledge management programmes are focused primarily on information technology. The purpose of this paper is to present a practical application of one of KM tools, which fall into the category „people track”.

Obsessed by the latest technology developments, too often do we forget that many problems of hierarchical or networked organisations may be solved by utilising ‘out-fashioned’, yet astonishingly efficient approaches and methods. One of such methods, developed in the US Army called *After Action Review* (AAR) has drawn attention of the authors. It appeared that the underlying assumptions and organisational context of AAR's are well suited for a practical problem we faced. By analysing the AAR methodology we concluded that after certain modifications AAR can be used for implementation within the framework of a priority of the Austrian Objective 3 programme (esf, 2000-2006), namely Territorial Employment Pacts (TEP). The scope of modifications, as compared to the original AAR procedures, was substantial. The methodology for the new knowledge management technique named OPEN REFLECTION CYCLE (ORC) along with some practical experiences gathered in the process of implementation will be described in this paper.

2. Some theoretical remarks

2.1 Organisational knowledge

A common knowledge management challenge in today's organisations is how to transfer existing knowledge into other parts of the organisation. In case of TEP's the knowledge transfer encountered even greater challenges: how to transfer knowledge within a network of professionals from different organisations? The concept of organisational knowledge sheds some light on the issue.

Organisational knowledge is multidisciplinary, difficult to formalise, and generated in discussions with competing viewpoints (Shum, 1998). It relates to groups of individuals working together. Knowledge may occur not only in an individual but also in a group of individuals. In other words, a part of the intellectual capacity of an individual can only be utilised when s/he engages in group work. A team of interacting individuals can have

¹ www.sveiby.com

knowledge that transcends the knowledge of each of them individually (Walsh, 1995). Group knowledge is related to organisational knowledge structures (Vasconcelos et. al, 2000). Knowledge resides in the minds of the people that make it up. In practice, however, this knowledge is often under-utilised or wasted due to lack of appropriate knowledge management. ORC is a KM tool, which enables to extract the full potential of knowledge through integration of dispersed and unstructured knowledge of the group members. Building on this assumption, we use the term “group memory” to denote a potentially valuable knowledge, which can be retrieved only when interacting individuals participate in collective team work.

2.2 Double loop learning

Argyris (1976a, p. 638) describes “double loop learning” as an important process because: "... without it individuals are not able to examine their values and assumptions in order to design and implement a quality of life that is not constrained by the status quo". Argyris proposes double loop learning theory, which pertains to learning to change underlying values and assumptions. The focus of the theory is on solving problems that are complex and ill structured and which change as problem-solving advances.

Double loop theory is based upon a "theory of action". This perspective examines reality from the point of view of human beings as actors. Changes in values, behaviour, leadership, and helping others, are all part of, and informed by, the actors' theory of action.

There are four basic steps in the action theory learning process (cf. Argyris and Schon, 1974):

1. Discovery of espoused and theory-in-use
2. Invention of new meanings
3. Production of new actions
4. Generalisation of results

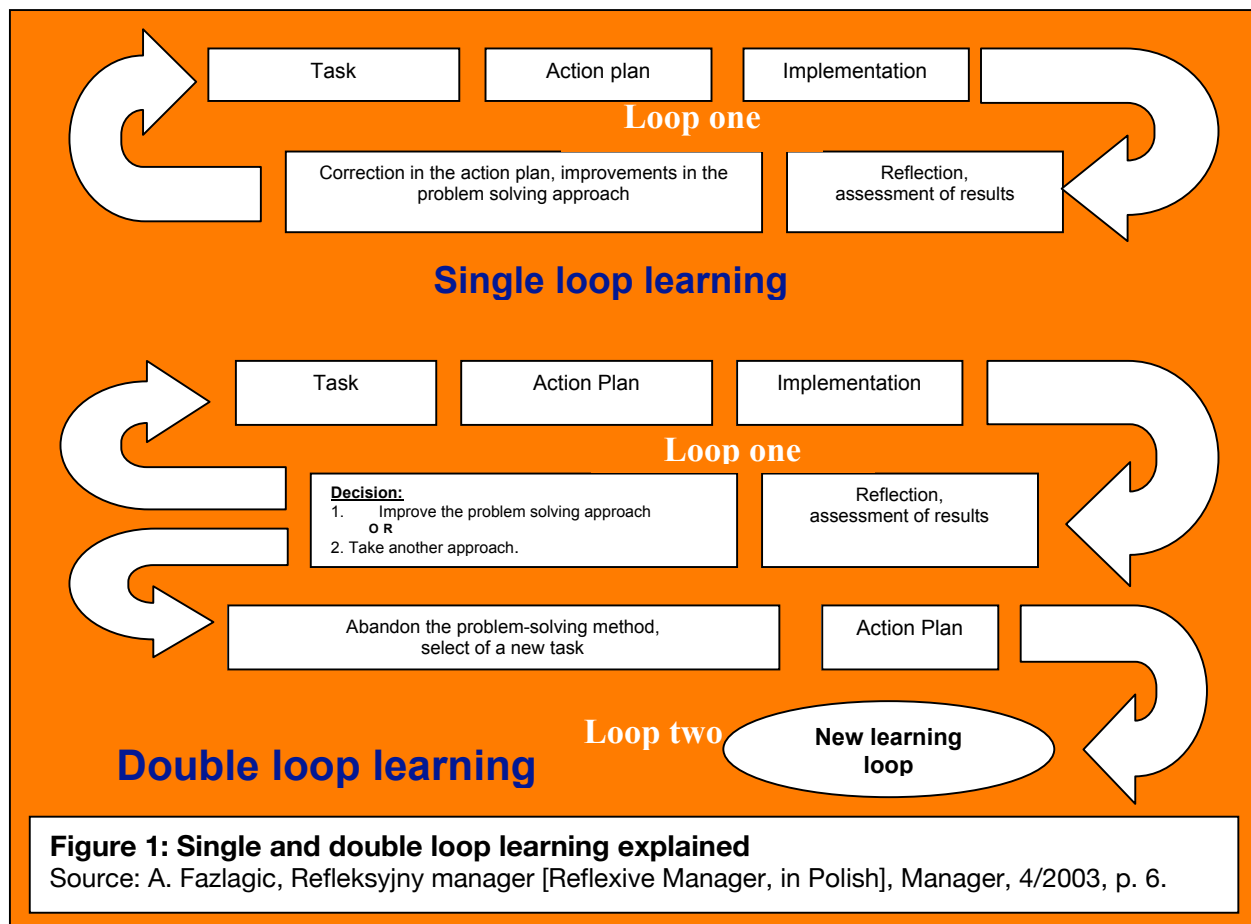
Double loop learning involves applying each of these steps to itself. In double loop learning, assumptions underlying current views are questioned and hypotheses about behaviour tested publicly. The end result of double loop learning should be increased effectiveness in decision-making and better treatment of failures and mistakes (Argyris, 1976b).

Two main principles of double loop learning are:

1. Effective problem solving about interpersonal or technical issues requires frequent public testing of theories-in-use.
2. Double loop learning requires learning situations in which participants can examine and experiment with their theories of action.

Double loop learning is a theory of personal change that is oriented towards professional education, especially leadership in organisations². The concept of double loop learning explains how the change of thinking patterns may facilitate innovation by enabling the individuals to change prevailing assumptions and working routines (Figure 1).

² <http://www.socialwork.com.hk/psychtheory/therapy/action/double.htm>



2.3 Reflection

Reflection is a state of mind in which the basic assumptions behind ideas or policies are confronted, hypotheses are publicly tested, and 'truths' are questioned. The initial concept of reflection refers to the active, careful consideration of any belief or supposed form of knowledge. The key elements in the reflection process are reviewing and judging present knowledge or beliefs. Those learners who apply reflection in their daily routines engage their own feeling and emotions, and re-evaluate past experiences from different perspectives.

Reflection suggests recollection and the remembering of events and activities past, it is remembering with a grounding of beliefs. Dewey (1933) stated "reflection thus implies that something is believed in (or disbelieved in), not on its own direct account, but through something else which stands as witness, evidence, proof, voucher, warrant; that is, as ground of belief" (recently published anew by Dongsik and Lee, 2002; p. 375 f.). For Dewey, reflective thinking consisted of two parts: a state of doubt and a search to resolve that doubt³.

According to Schon (1987) reflection can be categorised as "reflection on action" and "reflection in action". Reflection in action refers to the thinking over ongoing learning activities, and it is used for monitoring one's behaviour or reaction. Reflection on action means revisiting

³ S. Klein, UW-Stout and W. Chandler, UW-Whitewater, For Preservice and Inservice Art Teachers, <http://www.uwstout.edu/art/artedportfolios/reflection/>

one's own thinking patterns before, during and after action. It is the result of learning experiences. The concept of reflection focuses the attention of an individual or a group on the past experiences and allows them to acquire new knowledge without the stigma of being punished for failures.

2.4 After Action Review

“After Action review” (AAR) is a reflective tool that prompts a team or an individual to ask the following questions:

- What were the desired outcomes?
- What were the actual outcomes?
- Why were the outcomes different to those planned?
- What was learnt? (What will be done differently next time?)

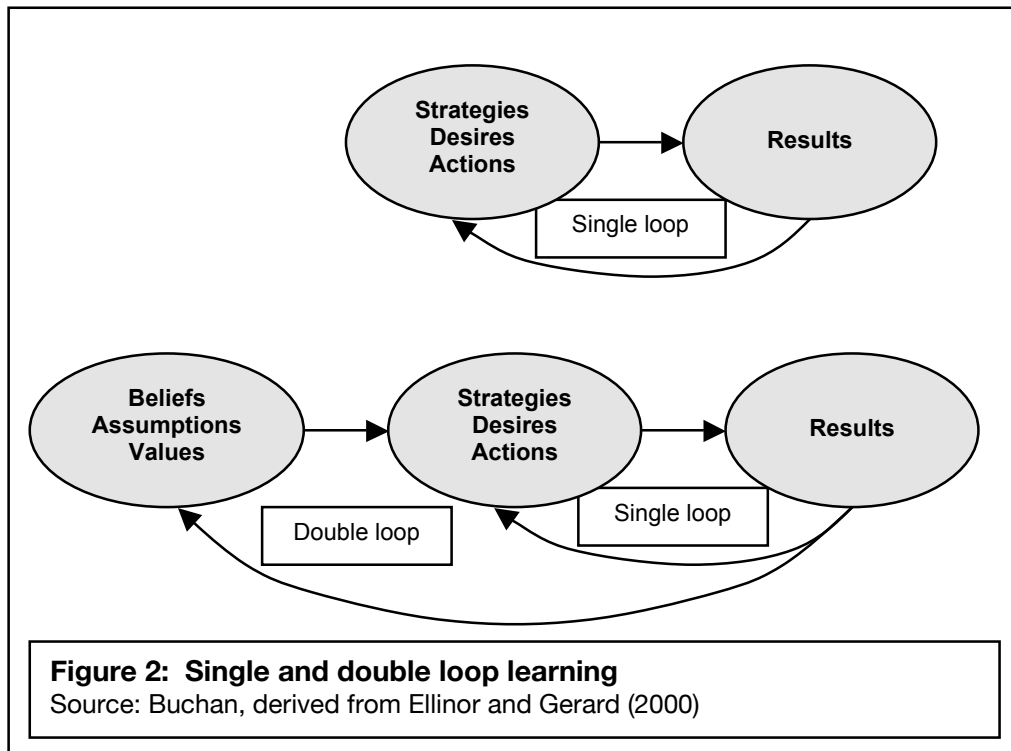
Buchan (2002) argues that After Action Reviews support single loop learning. Organisations pursuing single-loop learning will describe themselves as continually ‘fire-fighting’ or ‘reinventing the wheel’. Double loop learning, in turn takes the enquiry into the realm of beliefs, assumptions and values. The participants of a double loop learning exercise will not only look at the strategies, desires and actions that set up the projects results, but also challenge the reasons for undertaking those specific actions. Only by understanding our beliefs, assumptions and values we become able to avoid repeating negative behaviour (Figure 2). The modified AAR method, called “Open Reflection Cycle” is oriented towards double loop learning.

In an After Action Review a business event is discussed in order to facilitate learning of the individuals involved. However, in today's business environment time pressure, impromptu meetings, presentations, scheduled meetings, appraisals etc. usually do not permit evaluations of past events. There is pressure to start the next project without a wrap-up review of the previous one. When a new project starts there is little time to review the learnings of the past and glean a little of the wisdom of the team members. By investing a little time it is possible to dramatically leverage the learning process within an organisation.

The AAR is a professional discussion, but by no means criticism. It provides several advantages compared to usual styles of critical statements:⁴

- It does not judge success or failure.
- It attempts to discover why things happened.
- It focuses directly on the tasks and goals that were to be accomplished.
- It encourages employees to surface important lessons in the discussion.
- More employees participate so that more of the project or activity can be recalled and more lessons can be learned and shared.

⁴ A Leaders Guide to After Action Review (TC 25-20) (1993), U.S. Department of The Army



Dialogue is an integral part of After Action Reviews, and of reflection in general. To query assumptions regularly, to suspend judgement and values, and to identify and recognise how belief systems come into play, requires extra effort and commitment. A dialogue in everyday language is associated with ‘talking’ or ‘telling’. There is, however much more to it. Dialogue⁵ is used to suspend judgement, identify assumptions, listen and inquire and reflect. Each of the four practices supports double loop learning in AAR (Buchan, 2002).

The After Action Review (AAR) is the U.S. Army’s method for providing performance feedback from a collective training exercise. It is defined as “a professional discussion of an event focused on performance standards, that enables soldiers to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses.”⁶ The U.S. Army Research Institute for the Behavioural and Social Sciences (ARI) developed the method in the 1970’s. Its purpose was to create a structured means to facilitate day-to-day learning from combat training exercises. Now AARs are firmly embedded in the U.S. army culture.

⁵ Dialogue is a disciplined form of conversation. It is an emerging process that has tremendous potential for transforming the way that people communicate and share tacit knowledge. People in a dialogue tend to adopt a view to learn from each other rather than to impose their views on the other. See: Dialogue and Action reviews, The Gurteen Knowledge Website, www.gurteen.com

⁶ After Action Review: Methods and Tools, U.S. Army Research Institute for the Behavioural and Social Sciences FACT SHEET

Later in the 1990's AARs were brought to the business environment. One of the first articles on the subject was published in the Harvard Business Review, 1993, by David Garvin entitled "Building a Learning Organisation". Organisations, which use this method, include BP-Amoco, Steelcase, Motorola and General Electric.

AAR requires pre-planning and reasoning as well as talent and creativity. AAR is a formalised method of reflection, which means that there are certain steps to follow, as shown in chapter 3. It is a kind of art and science at the same time. There are at least three variations of AARs (formal, informal⁷ and the personal⁸ AAR). The newly developed ORC method belongs to the formal AAR: A formal AAR is resource intensive and involves planning and preparation of supporting materials. Formal AARs have external observers or other means of data gathering. It is necessary to take time for preparation and conduct. They need to be scheduled beforehand, and success depends largely on good conduct and support.

An AAR usually has a positive impact upon the overall moral of employees and strengthens the organisation's unity. It helps to prevent confusion on organisational priorities and philosophies and drive home the point that we learn from mistakes.

3. Social innovation⁹ put into practice: The ORC method

The ORC-method was conceived and applied in 2003 during a workshop organised for the Austrian Territorial Pacts, which are powerful co-operation instruments in labour market policy. The application of the method provided excellent results in reflecting and learning with a group of about 25 participants, who work in public and semi-public sectors.

3.1 TEP-Setting

„Territorial Employment Pacts" (TEPs) in Austria are co-operation structures mainly in the field of labour market policy. TEPs are defined as contractual alliances of different sectors pursuing the joint objective to take all necessary measures for job creation and job protection. TEPs are in many cases reported as international best practice examples for co-operations in labour market policy¹⁰ and have been implemented under the auspices of the Federal Government since 1998 after positive results were gained from pilot pacts established within the scope of a European Union initiative. Since December 2001 TEPs became established in all nine Austrian provinces. Additionally some TEPs were set up on local level.

⁷ Informal AARs require less preparation and planning and can often be help on the spur of the moment. An informal AAR would be conducted, for example, after a much smaller event such as a presentation. Informal reviews are conducted as appropriate by anyone. They take little or no time to prepare, need not take long to be conducted, being incepted as needed and are held anywhere as appropriate.

⁸ Personal AARs are held by an individual. They are usually quick informal affairs, e.g. to review the outcome of a telephone call to a customer.

⁹ Social innovation occurs when new mechanisms or norms consolidate and improve the well being of individuals, communities and territories – through social inclusion, creation of employment and improved quality of life. Social innovation can encompass conceptual and organisational change. It may spark off changes concerning financial activities, improvements in access to capital for socially excluded people and new relationships between stakeholders and territories. Social innovations reinforce local development by improving the quality of human resources and the quality of life, as well as the capacity of a territory to enhance its development potential. Source: OECD, www.oecd.org/tds/leed

¹⁰ OECD Study on Local Partnerships in Austria, 1999; EC-Peer Review 2001; EC-Employment Reports; etc.

The TEPs in Austria combine resources, implement different programmes such as for instance EQUAL and put strategies¹¹ and horizontal labour market targets¹² into practice on the regional level. In 2002 the overall budget of the Pacts¹³ reached an amount of Euro 400 Million. As far as known by the authors, the bundling of financial resources to this extent via regional partnerships is unique world wide. As a result the Austrian way in building up regional partnerships gained international reputation and respect. It received positive evaluation and appreciation by international experts¹⁴.

For the purpose of advising and supporting the TEPs, the Federal Government commissioned the establishment of a Co-ordination Unit for the entire country at the Centre for Social Innovation (ZSI), which had accumulated comprehensive knowledge and experience in partnership building and networking. Since beginning the Co-ordination Unit runs numerous services for TEPs in Austria. It delivers comprehensive advice for the Austrian TEPs¹⁵, provides tools and activities for the exchange of information¹⁶, and distributes up-to-date knowledge on relevant issues via well-established communication structures¹⁷. The comprehensive knowledge pool of the Co-ordination Unit includes not only already applied management tools, but also expertise in developing and implementing new methods. Significant examples are the Austrian-wide TEPGEM platform (an e-based communication tool for implementing Gender Mainstreaming in the Pacts), and the newly applied Open Reflection Cycle (ORC).

Exchanging practices is one of the focal points of the Co-ordination Unit. From the beginning the Unit focused – as usual – on best practices, whilst in 2003 an – unusual – experiment was launched to initiate a process of reflection on worst practices. The Unit designed and organised a workshop on “Reflecting and Learning Pacts”, which was held in May 2003. On this occasion the ORC, a method for individual and group reflection and learning, was conceived by the Co-ordination Unit. During the workshop the ORC method was applied in collaboration with all nine Austrian TEPs. Nearly all of the 25 participants knew each other, had differing positions and organisational background, and either belonged to the public or the semi-public sector.

3.2 Why was ORC developed?

The aim was to reflect worst practice examples of the TEPs as the partnerships experienced similar challenges in building up and implement the partnership, the programme and the project level. In approaching these three different levels, the TEPs were encouraged to learn from bad experiences of each other so that finally new knowledge derived from worst practice experience. Recommendations for repeated attempts were transferred.

The aim of transferring and disseminating knowledge (in our case within one country) is one of the main differences in comparison to the well-known traditional AAR method. As ORC is based on AAR, it also aims to reflect and learn individually and in a group. ORC promotes knowledge creation in a process whereby double loop learning is experienced and group memory favours positive effects.

¹¹ E.g. National Action Plan against poverty and social exclusion

¹² E.g. issue of Gender Mainstreaming

¹³ Austrian partnerships fund a wide range of measures, projects and initiatives to improve the labour market situation.

¹⁴ E.g. OECD Study on local partnerships, 1999, EC-Peer review, 2001

¹⁵ E.g. devolution models for the Pacts

¹⁶ E.g. guidelines, unique conference model of Exchange Mart

¹⁷ E.g. web-page and communication platforms

4. An Open Reflection Cycle case study

As ORC is an adopted formal AAR variation, preparatory work is needed. ORC planning processes comprise three main components:

- Decision on the overall theme for reflection
 - e.g. communicational, project-based, structural example
 - in our case: the three levels: partnership, programme, and project levels
- Selection of the participants
 - the group should be familiar with similar problems (e.g. in a project, department, or thematic field)
 - in our case: TEP co-ordinators and interested partners on regional and local levels
- Definition of group forming criteria
 - e.g. regional provenance, thematic field of experience, position, tasks of participants, occupation, membership to departments of firm (see also requirements of the ORC method)
 - in our case: TEP-“regionality” (working groups consisted each of TEP actors from the same regional provenance)

This work has to be conducted by the coach leading through the workshop. In our case the coach was the manager of the Co-ordination Unit, who also is one of the authors.

During the ORC the participants pass through three consecutive phases, namely

- individual selection and group forming,
- ORC group reflection and
- joint review.

4.1 Individual selection and group forming

During the preparation phase, each participant individually chooses worst practice examples experienced and writes an indicative title of the examples on post-it notes (one note per worst practice example). The certain number of chosen examples is defined by the coach. It may be helpful, if the practices belong to different areas as was the case in our workshop¹⁸. In practice the preparation will last about 5-10 minutes.

Working groups with up to five participants are set up according to group forming criteria (see preparatory work). Depending on the number of participants and the size of the groups no more than up to five groups work autonomously in the next phase, the ORC group reflection.

¹⁸ The participants had to choose three worst practice examples, one on each pact level (structure, programme, and project level).

4.2 ORC group reflection in five stages

Each group passes through the ORC on its own. Thereby, it is central that each participants' case is heard. Finally, the group should come up with a common view at each stage of the reflection process (stages 1-5). The main results of each stage should be set down (e.g. on flip-chart papers) as presentations will follow in phase 3.

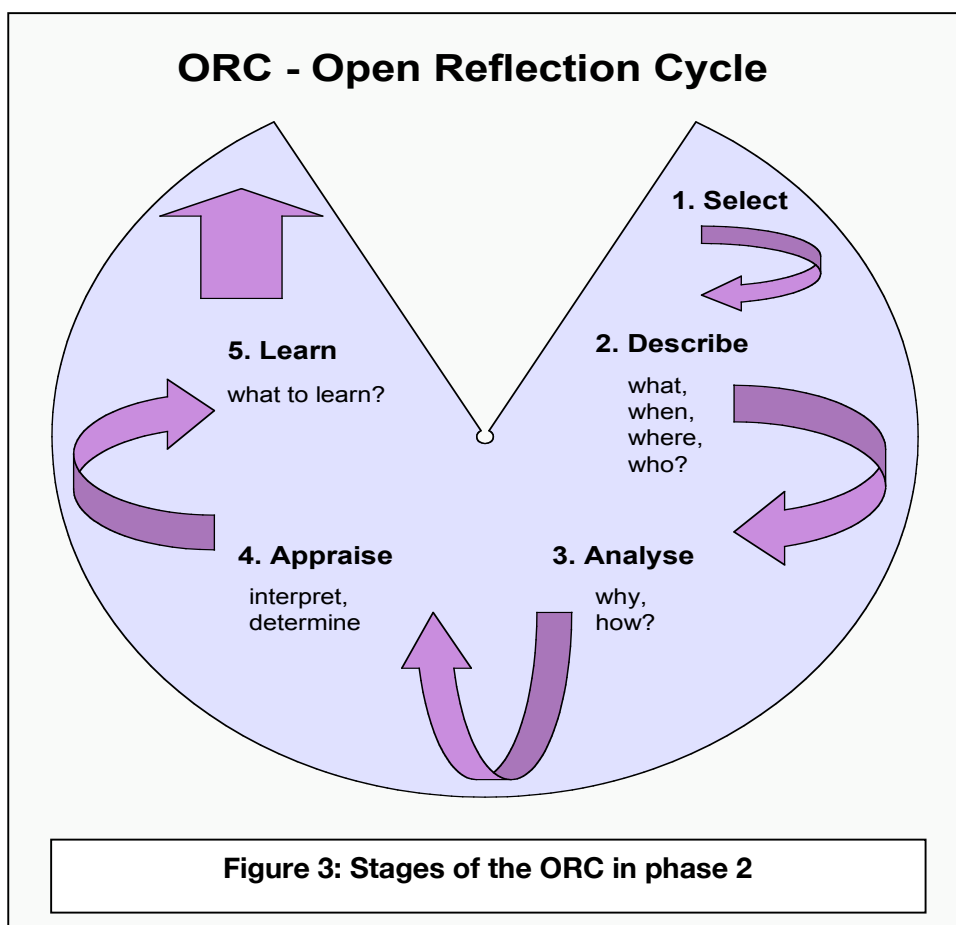


Table 1: Reflecting the ORC process

<p>1. Select:</p> <p>All of the individually chosen worst practice examples are discussed in the working group. Each group selects out of all one worst practice example based on the question: "From which worst-practice example may we learn most?"</p> <p>The following reflection process (stages 2-5) should be carried out with this worst practice example only.</p> <p>Estimated time for selection: 10 minutes</p>

2. Describe

Autonomously, each working group describes the worst practice example by answering the questions “What has happened?”, “Who was involved?”, “Under which circumstances (attended, external, circumstances beyond our control) did it take place?”, “Were there any concerns/objections?”, “When did it happen?”, and “Where did it take place?” .

3. Analyse

The groups analyse the worst practice in conjunction with following questions: “Why had it happened / why did it go wrong?”, “What were the reasons?”, “Which processes took place?” and “How did it go wrong?”

4. Appraise

In the fourth stage the example is appraised by the group: determination and interpretation of each participant regarding the consequences, effects and impacts of the worst practice is important to complete the assessment.

5. Learn

“What to learn from the worst practice example?” is the main question in stage 5. The group discusses individual and organisational learning experiences, and responds to further questions: “Which recommendations can be deduced?” and “Which altered circumstances would be necessary to make it work better next time (repeated attempt)?”.

Estimated time for stages 2-5: 20 minutes each



Fig. 4: ORC reflection process in stage 1 (Selection of worst practice example)
Eisenstadt/Austria, 2003

4.3 Joint Review

All working groups bring in their common views of stage 1-5 during the Joint Review by presenting the major results to all participants (e.g. by using flip-chart papers). The focal point of all presentations should be put on the learning experiences of stage 5.

For serious discussions the coach can use questions like:

- “Did the worst practice example or a modified version of it appear in another group, too?”
- “What is the learning experience for the others, if repeating the attempt (under altered circumstances)?”
- “Which altered circumstances would be needed?”
- “Which recommendations are given?”

Results of the discussions should be set down on flip-charts by the coach. Closing comments (e.g. by the coach or representatives of each of the working groups) are instrumental in finalising the workshop.

5. Lessons learned

In our case, each working group came up with a common opinion in each stage and presented one worst practice example in the Joint Review. The presentations were extraordinarily open-minded: Group conflicts did not come up at all, problems were pointed out directly. Working group participants came up with solutions even if they were personally involved in the problem and members from other working groups helped with understanding utterances. Some participants from other groups described solutions which were experienced in their TEPs so that discussions on problem solving ideas were undertaken mostly. Trust was lived during the whole process.

The TEP’s feedback on the ORC method in use was extremely positive. In the end discussion focused on the matter of how and when the ORC could be repeated.

In consideration of the fact that the ORC method was applied only ones, used by participants knowing each other since some years, who all work in the same field, the following pro’s and con’s can be put down for ORC, in general:

- Scope of application:

The method can be used for practices of different themes (e.g. communicational, project-based, structural examples) and adapted to special situations or needs (requests of participants, such as interactivity). ORC can be exercised independently from time and place. Differing positions and knowledge of participants need not to be seen as obstructive.

- Requirements:

The fundamental requirement to use ORC is the willingness of the participants to reflect and learn from each other. Furthermore, participants should have something in common (e.g. professional experience), and need to know and trust each other. As the reflection on the examples has to be carried out by all members of the working group, it is certainly an advantage if participants work in the same field (e.g. collaborating in one project, yet involving different departments).

Confidentiality should be the highest bid as it allows participants for being open and above board. As mentioned afore, a coach is needed to lead the group through the process to assure positive results. Skills required are talent, creativity and flexibility besides moderation skills. For applying the ORC method only regular moderation equipment is needed, such as flip-charts and post-it notes, and marker pens.



Fig. 5, Joint Review: Reflection of worst-practices during the ORC-process
Eisenstadt/Austria, 2003

6. Final remarks

Both ORC and AAR methods share many similarities. They

- are used in groups and individually,
- are reflection management methods,
- require preparatory work and certain steps to be followed,
- can be used in practically all organisational settings and business sectors.

The most important distinguishing feature between ORC and AAR is that the ORC facilitates open loop learning processes (double loop learning continued). The participants do not need to reflect from the beginning. Secondly, ORC facilitates not only learning but also helps to disseminate knowledge throughout the network. Table 2 shows the major differences that distinguish ORC from AAR.

Characteristics	ORC	AAR
Learning process	Open cycle (double loop)	Closed circuit (one loop)
Aims, focal point of method	Transfer of knowledge	Reflection
Application	Mainly for worst practices, avoiding mistakes, to specify and distinguish “individual/personal” and “group” failures	Good and worst practices
Implementation field, target group	Public sector (public and semi-public sector)	Military and business

Table 2: Comparison of two KM methods.

The participants of the ORC workshop, organised within the framework of TEPs, praised the method for its innovativeness and efficiency. Huber (2003) calls for a follow-up and emphasises the positive effect of reflection-oriented learning.

ORC is a knowledge management method, which has been developed to facilitate learning within a network of representatives of various public sector and not-for-profit organisations that participated in the project. The authors have taken on the challenge of reviewing a complex body of knowledge on reflection, learning and knowledge management. As a result a new, efficient and promising knowledge management tool was developed and implemented. The success of ORC proves that theoretical knowledge can be implemented successfully in practical applications and bring measurable positive results. The authors would welcome comments from organisations interested in learning more about the method and the TEPs.

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