

# Issue-Focused Knowledge Management - A Business Practice Design Example

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Don Dauterman, President of Durametal in Portland, OR, emailed me after reading our column on Managing Core Competency Knowledge (Dec '97). They sell specialty niche-market metal castings. Tricky stuff. They have a few wizards that easily fashion a part-design and process solution to a unique customer need, but they can't spread these guys around enough. So they want to capture this deep process insight and give it to the rest of their customer engineers. Don's been told that the solution comes in a box of software - knowledge management software - that knowledge management belongs to the Information Technology department. After all, knowledge management is just an extension of information management.

He doesn't feel comfortable with that assessment, however, and neither do I. The dialog is in the February Guest Speaker section at [www.parshift.com](http://www.parshift.com), so we won't repeat it in this limited space. But we recognize that the Information Technology solution to knowledge

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management is seducing many unwitting (or maybe just lazy) people today. Don't get me wrong - technology is a good knowledge management answer sometimes; but not in

Durametal's case, and not in the case we've been dealing with here - both are about creative competency - and competency is more than a bucket of knowledge - it is the insight to apply the knowledge effectively.

These last few columns have been designing a core-competency renewal and training system to a set of specifications that surfaced in a workshop last year at GM's Pittsburgh plant - which has unique competency at small-lot, high variety metal fabrication. This plant wants to infect a broad cross section of employees with the unconscious competency of a few.

Like a soap opera, we're in the middle of a continuing story. If you've just tuned in some of the context won't be evident, especially since we are now going to justify the design of seven business practice activities we detailed last time (Feb '98). The library at [www.parshift.com](http://www.parshift.com) will fill in the blanks for you.

Questions: Do the proposed activities actually address the issues we are concerned with? Are any of them superfluous? Are they sufficient to dispatch all the issues successfully? These questions must be answered for each of the 12 issues that constitute our design requirements specification - especially if we have to justify why an Information Technology software solution isn't adequate.

The accompanying table is a design tool that we use to relate the seven functional activities to the issues that they address, and to the RRS design principles (Feb '97) that they employ. For now we will focus on the issues only, and discuss the employment of RRS principles next time.

**Capturing Hidden Tacit Knowledge** - Like butterfly collectors, we don't want to put our captured specimens in a box, but rather display them side-by-side in a similar format so that their individual merits and uniqueness are immediately obvious. To this end a key activity is to *package as metaphor models* the knowledge we find. This local metaphor model display format (Oct '97) also channels the activity that *analyzes a local case for principles* into the tacit knowledge areas with explicit probing questions. The structured analysis process uses a template of eight change-issue areas and a template of 10 fundamental principles to probe for hidden tacit knowledge, and to help relate that tacit knowledge and its personal representation to common fundamental principles. The third contributing activity is the *rotation of student and mentor roles*. As a mentor you attempt to cast your tacit knowledge into communicable terms, and in the process develop an appreciation for what you don't know about what you know. As a student you develop and exercise a communication mechanism and vocabulary that helps you cast what you don't know into a coherent knowledge representation. A few times around the loop and you have highly mobile insight patterns.

**Creating Student Interest and Value** - This issue is hit square on the head with the activity to *establish personal values*, the lead-off exercise for every workshop. The principle-based correlation shown in the accompanying table is readily seen in the last essay's considerable attention to this activity (Feb '98). Two other activities play important roles here as well. Having to *design a business practice* arouses interest in people impacted by that practice, and gets a ho hum from people only indirectly affected. Similarly, choosing which case will be used when you analyze an external case for ideas

lets you put your time where your interests lie. Passionate minds will do a much better job of analysis and design, but more importantly, they will do a better job of learning. If the company is faced with a pressing problem that the next workshop must deal with, then populate that workshop with people who care about that problem. If other students are waiting in the wings, run them in a parallel workshop. Let the workshop group decide from among management suggestions as well as their own candidates which problem to attack and what external cases look interesting. Remember, going to the movies is always enjoyable when you get to pick the movie - but if your dragged off to someone else's choice its often just that - a drag.

**Improving Knowledge Accuracy** - Three of the seven activities contribute to this issue. When the group *analyzes a local case for principles* it may well be a case that has been analyzed in that past - producing different and more learned perspectives with time. *Rotating student and mentor roles* on a re-analysis brings different depths of insight to bear as well. And of course the QA committee plays a vital role here in its *review and selection for quality* of all results.

**Improving Knowledge Effectiveness** - The issue here refers to the breadth of both knowledge and communication among the employees, and four activities play a role here. By first *establishing personal values* we have increased the receptivity of the audience. By *analyzing external cases for ideas* we guard against narrow insular knowledge. When this knowledge is used to *design a business practice* we broaden the collective application experience and develop personal competency. Finally, communicating newly developed knowledge throughout the employee base is easy when it is *packaged as a metaphor model* of similar format to past knowledge.

**Migrating the Knowledge Focus** - Knowledge based on fundamental principles has long life, but the focus of application changes much quicker. *Analyzing external cases for ideas* will explore new frontiers as often as it looks at current alternatives. When the group *designs a business practice*, or redesigns one, the opportunity to redefine leadership exists - especially in strategic practices. Out third contribution comes when the QA committee reviews and selects for quality those workshop results best aligned with the organization's strategic future.

**Accommodating Different Student Types** - Every activity contributes here, as they must.

These workshops are fairly self organizing, accepting objectives and guidelines but not repetitive rote learnings. Students are responsible for choosing the external case studies, local cases for analysis, business practices for (re)design, and the individual personal value exercises. External guidance rotates students and mentors and selects candidate business practice problems with the group constituency in mind. Finally, the metaphor model packaging is a fundamental template that can model virtually any part of the business from the special perspective of any employee group.

**Injecting Fresh Outside Knowledge** - This issue is hit head on by *analyzing external cases for ideas*. An even stronger contribution comes by *rotating student/mentor roles*, which breaks the chain of enforced old-think.

The accompanying "closure matrix" is a tool we use in our design activity to verify that we have in fact addressed the issues as intended, and employed the adaptable RRS principles in the process. It is not used as a simple score-sheet, but rather as part of the design iteration process; typically strengthening activity designs to address an issue more directly and to employ the principles more effectively. Here we discussed how the seven activities address the seven proactive issues. Next we will look at the remaining five reactive issues and turn our focus to the employment of RRS principles.

For a first-hand design experience, perhaps even aimed at one of your business practice problem areas, join our 1998 Realsearch Discovery Workshop Series. Last year the workshop series focused on identifying and refining the ten RRS principles. This year we will focus on employment of the principles for real design efforts. For 1998 we are looking for seven workshop hosts and 40 or 50 Realsearch Team Members that will participate in a minimum of two of the workshops. Call now for details or check out [www.parshift.com](http://www.parshift.com), and get involved.

**Closure Matrix**

Activities		RRS Principles										
		Self Contained Units	Plug Compatibility	Facilitated Re-Use	Peer-Peer Interaction	Deferred Commitment	Distributed Control & Info	Self Organizing	Flexible Capacity	Unit Redundancy	Evolving Standards	
<b>Establish Personal Values</b>		1										
<b>Analyze External Case for Ideas</b>		2										
<b>Analyze Local Case for Principles</b>		3										
<b>Design a Business Practice</b>		4										
<b>Package as Metaphor Models</b>		5										
<b>Rotate Student / Mentor Roles</b>		6										
<b>Review and Select for Quality</b>		7										
Issues		Principle-Based Activities and Issues Served										
Proactive	Capturing Hidden Tacit Knowledge	3567	35	356	57	3	37	6	3		3	37
	Creating Student Interest and Value	124	1	1	1	12	124		124	1	1	
	Improving Knowledge Accuracy	3467		6		34	37	6	34		34	7
	Improving Knowledge Effectiveness	12345	345	245	45	1			12	5	2	
	Migrating the Knowledge Focus	247	27	4	2		4	7	247		4	47
	Accommodating Different Student Types	(all)	25	6			347	2	12345	1	17	2
	Injecting Fresh Outside Knowledge	26	26	26		2		6	2			
Reactive	Finding and Fixing Incorrect Knowledge	367	7		7	3	3	6	3		3	7
	Excising Poor Value Knowledge	2357	7		7	3	3	2	23		35	257
	Allowing Flexible Student Schedules	34	34			34			34			
	Accommodating Any Size Group	2345	2345	234				2	25	34	234	
	Reinterpret Rules for New Applications	23457	27		5		2	357				23457