

TEACHING LEADERSHIP

Developing Competencies for Inclusive Decision Making

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Introduction

Looking back at my education, at what I like to cherish from those years, what then comes to mind is the way some teachers were as a person, more than what they taught. I hardly remember the content of their lessons, but I do recall them telling stories, being compassionate or reflective. Of course I can also recall the boring lessons, the many days that passed in routine, the many teachers hardly present to their classes.

In retrospect, one can observe that the long and boring lessons probably shaped my competencies more than the few inspiring moments. We get used to people functioning on a lower level than they might. We get used to not addressing each other in our highest aspirations and competencies. Long ago, we accepted to live with moderate solutions and compromise. As Hämäläinen & Saarinen recently observed, most human interactions are subdued, by the system of holding back, by a behaviour of restraint more than by a behaviour of inspiration and aspiration [Hämäläinen & Saarinen 2004].

This paper explores education and teaching as a means to catalyse competencies of students and professionals. Society puts many challenges to professionals. This paper describes some of these challenges, on the level of society, human interaction and self-image. Students need to develop professional competencies in all three realms. Most courses still have a focus on discipline based knowledge and skills, and a staff that has its major competence in specialist knowledge. But the new requirements for higher education as developed in the EU do also elaborate these three competencies. The paper ends with some reflections on the role of teachers as an element in the systems of learning.

A Challenging World

The world is changing and the character of work is changing with it. In the view of Manuel Castells: the closed and hierarchical society is transformed into an open network society; the information economy is rising; and the reality is enriched with virtual reality, as in the internet [Castells 1998]. These processes influence the way organisations can function. They challenge the visions and values of firms, governments and NGO's. They also challenge the knowledge, skills and attitudes of professionals.

Globalisation has a huge impact on interactions: people travel all over the globe, but also goods travel, and services, information, money, cultures, ideologies, perspectives, threats and chances. As a result, world economy is growing, for the benefit of many – but not yet for all. Human activities always had their impact on the ecology. But the size of the environmental hazards is rising to a global scale. Many realms in the global society know challenges that surpass the traditional policies and institutions. Meeting the demands of people and organisations in a sustainable way often requires new strategies, new institutional patterns. Creating those strategies requires new ways of working. A recent example is this new postdoctoral course on Sustainable Transport. The brief outline says: *“The act of sustainable planning and design is a heuristic process; that is, one in which we learn by doing, observing, and recording the changing conditions and consequences of our actions. This course examines new responses to the transportation planning process, instead of the more conventional approaches, using mainly quantitative analytical tools, linear behaviour assumption and static forecasting.”* [Wessex 2007]

For knowledge that matters in decision making, for interactions professionals have to operate in, and for the self-awareness of professionals, this has major consequences. The next three sections elaborate these perspectives.

Decisive Knowledge

Professionals that rely on their disciplinary knowledge do not survive in this new reality. The relevance of disciplinary knowledge is decreasing, other kinds of knowledge are taking over. The way decisive knowledge is produced is also changing. Studies into knowledge management and innovation show this clearly.

For instance Gibbons et al. analysed the way organisations use and create knowledge. They distinguish two types of knowledge. Mode 1 knowledge (K1) represents classical scientific knowledge, often structured in a mono-disciplinary way. Each discipline has its own institutions for research, education, knowledge transfer, scientific conferences. Each discipline has a central set of values determining which research outcomes and which information derived from practice can be acknowledged as true and justified. Most colleges and universities educate students to become a member of such a community. Mode 2 knowledge (K2) on the contrary is not disciplinary based. It is problem based. It derives its relevance from the context in which it is generated [Gibbons et al. 1994]. Nowotny observes that K2 is trans-disciplinary, rather than mono- or multi-disciplinary. It is what people actually create when they solve problems – when they integrate the disciplinary knowledge with their perspectives on the context that generated the problems. This creation occurs in a social context, through the interaction of people from various responsibilities, cultural and political background. Actors from different realms of society bring in their skills and expertise. The set of conversations and instruments is not based on any one of the disciplines involved [Novotny 1995, Novotny et al. 2001].

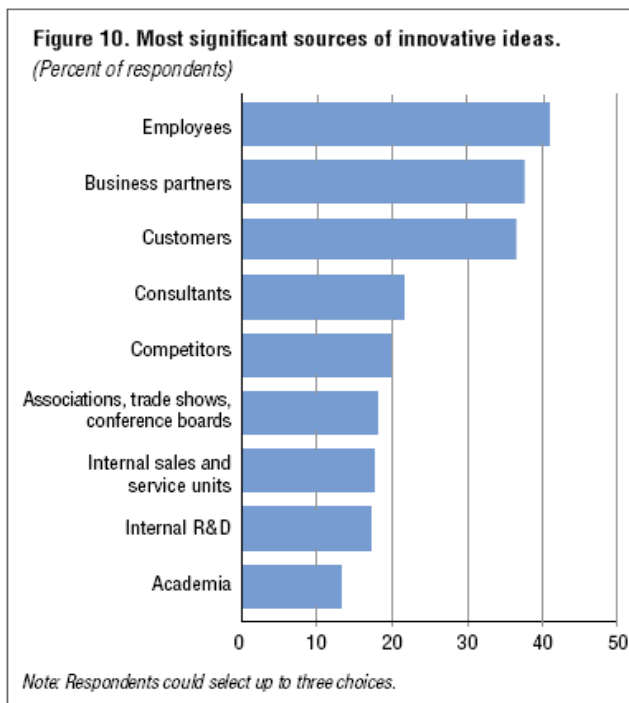


Figure 1: Most Significant Sources of Innovative Ideas According to CEO's from IBM, 2006

Recently, an IBM study confirmed this line of thought. Academia plays a tiny role as a source for new ideas for innovation. The interactions with stakeholders around the company form a far greater resource. Only 13 % of the respondents in the study named Academia as a source, whereas business partners, customers, consultants and competitors were named by some 40 - 20 % of the respondents. Employees generated most ideas [IBM 2006]. As Otto Scharmer says, the knowledge disseminated by universities "is becoming less and less relevant to leaders in organisations, knowledge which is increasingly disseminated by institutions other than universities" [Scharmer 2000].

Nonaka and Takeuchi studied innovation processes in Japanese businesses. They also find two sorts of knowledge: explicit and tacit knowledge. Their distinction

refers to its location. Explicit knowledge is mostly expressed in words and numbers and shared as data, scientific formulae and principles. Tacit knowledge is personal, hard to formalise, difficult to share. Intuitions and hunches fall into this type of knowledge. Tacit knowledge is deeply rooted in an individual's action and experience, as well as in personal ideals, values or emotions. Each organisation develops its own culture of ideals and values. This culture is partly explicit, but mostly tacit, held by in-

dividuals, teams and the organisation as a whole. Knowledge management mostly refers to the transfer of explicit knowledge. Innovation however requires the involvement of tacit knowledge. Nonaka and Takeuchi distinguish four modes of knowledge creation:

- *Socialisation*: from tacit to tacit: share experiences to create new tacit knowledge.
- *Externalisation*: from tacit to explicit: articulate tacit knowledge explicitly.
- *Combination*: from explicit to explicit: manipulating explicit knowledge by sorting, combining, et cetera.
- *Internalisation*: from explicit to tacit: learning by doing, developing shared mental models.

Explicit knowledge is easily transmitted across individuals, *within a shared context*. As soon as the language, the concepts or the values change, transfer becomes harder: many disciplines have trouble understanding each other. Transfer of tacit knowledge is even more complicated. Although this is the core body of knowledge that governs decisions, it is intermingled with the discipline, organisation, individual history, and personal values and attitudes. Most people aren't aware of all that. Transfer of tacit knowledge is a far more delicate process than the transfer of explicit knowledge. First every individual and every group or organisation must become aware of its existence. Respect for the often divergent perspectives of all individuals in a team is the major tool to learn. Within a trustworthy context people can learn to share their individual insights and to co-create new knowledge that matters [Nonaka & Takeuchi 1995].

Knowledge that matters in decision making can now be understood as a situated phenomenon. It is connected to the skills and attitudes of people, organisations and communities. It is not primarily based in disciplinary or scientific knowledge. It stems from the interactions between individuals in meaningful, problem solving processes. It has an integrative character. It enables individuals and teams to take decisions, to tune their individual knowledge, with the context of work, organisation and stakeholders. The main body of knowledge used in decision making is tacit: implicit knowledge intermingled with the individual's experiences in life and work. In teams and organisations, tacit knowledge mixes with explicit and disciplinary knowledge.

Education or training that focuses on the transfer of academic, Mode 1 knowledge creates unbalanced professionals: they also need the competence to participate in and contribute to collaborative decision processes, to share the interactions with professionals from other disciplines and with actors from other parts of society. This is an important task for education and training. The earlier students (or professionals) learn these competencies, the less they will have to learn it the hard way, and the sooner they can handle real life challenges.

Interaction with Impact

As Nonaka and Takeuchi stressed, sharing tacit knowledge is hard. Most people are hardly aware of the mental models that govern their behaviour. Besides, most people are hardly aware that the theories that actually govern their behaviour differ from the theories they think they live by. Teaching interaction with impact is a major challenge for education.

Argyris & Schön studied extensively the way people think and talk about their interactions with other individuals, and the way they actually behave. They came to a distinction of theories people espouse and theories that correspond to their actual behaviour, their theory-in-use. Most professionals state that respect and openness towards other actors, sharing of knowledge, and transparency of intentions are beneficial for all concerned. These are elements of the espoused theory. But when observing the actual behaviour of professionals, another theory appears to be at work. Most professionals actually try to exert unilateral control over their interactions with others. They act as if a focus on 'winning' is needed to minimise 'loosing'. Negative feelings are to be suppressed. Public testing of assumptions is intolerably risky. Most professionals assume that other actors hold the same values [Argyris & Schön 1974/1991, Argyris 1991].

This theory-in-use creates a kind of behaviour that prevents people from learning. It prevents open communication and it stops people from widening their scope of the reality and of available opportuni-

ties. This behaviour even creates its own reality: if actor A isn't certain about whether or not to trust actor B, it can be hard for A to take risks, and it seems better to avoid open and transparent behaviour. If A doesn't show trustworthy behaviour, B becomes uncertain about the intentions of A. B then starts avoiding taking risks himself. A then sees his suppositions confirmed. Now, both actors have a situation that confirms the presumed lack of trust without them being conscious of the fact that they themselves created that situation. In this way, mental models create their own reality.

These processes have been empirically shown in many contexts, in the interactions of professionals [Argyris & Schön 1974/1991, Argyris 1991], in negotiations [Fisher et al. 1991], in counselling [Miller & Rollnick 2002] and in education [Holmer 2001]. Argyris called the ability to operate with such contrasting ways of thinking: skilled incompetence. People learn to not share feelings of uncertainty, thoughts about the reliability of others, reflections on the poor outcomes of such interactions. They become so skilled in this behaviour that they in the end suppress negative notions. Academic professionals tend to rely on their intellectual competences. They are very skilled in this, thus creating incompetence on the level of their teams and organisations: available perceptions and notions are not brought into the discourse. So no one gets a chance to learn [Argyris 1991].

Creating better interactions between people (and professionals are people) thus requires a change in the mental models people hold over their lives, and a change in the way they relate to others. Organisations can create a context for such changes. Nonaka & Takeuchi give a good example of such a context. To promote the creation of knowledge that matters organisations can work on these conditions:

- *Intention*: engaging employees in fundamental questions; as opposed to top-down vision statements.
- *Autonomy*: give people as much independency as possible; versus blue print planning.
- *Fluctuation, creative chaos*: openness to the environment of the organization, combined with reflection about the interactions; as opposed to isolation.
- *Redundancy*: include information and practices that have no immediate use; versus lean and mean.
- *Requisite variety*: the organization must be richer in its patterns and processes than the environment; versus reduction of complexity.

In and around organisational learning many analogous concepts and approaches are developed to enhance the quality of the interactions of people. Dialogue, World Café, and Appreciative Inquiry are but a few. With the exception of managerial or psychological curricula, students hardly encounter such methods as an integrated part of their education. Graduates that bring the competencies to function in such conditions into their work will be far more effective than graduates that must rely on their disciplinary knowledge and skills. The competence to create such conditions would be an even greater endowment. It might be a great gift to society when universities could develop such competencies to their students.

Self-Awareness that Matters

The third challenge for education lies in the personal field. How people view themselves, which values they hold, what vision they have on their work (and life), influences the way they can perform in their professional (and private) life. Professional competencies not only contain knowledge and skills, they also contain attitudes. Many studies stress the importance of addressing attitudes as part of education. What people value most is of their own choice. But how they reflect on their mental models, on their ways of thinking and on the values that are transferred to them through the context they live in, that need to become subject of education. This section discusses three causes for this: the character of the labour market, the capability to learn, and the leadership towards the systems people work in.

Once upon a time, a proper education was seen as a safeguard for a useful occupation and a life-time job. But things are changing. The half-time value of knowledge is diminishing rapidly. For some professions, the knowledge obtained during education is losing its relevance within five years [Weggeman 2000]. Westera observes that employers want young managers to be able to operate in a context that

is "characterised by ill-defined problems, contradictory information, informal collaboration and abstract, dynamic and highly integrated processes. The concept of competence is strongly associated with the ability to master such complex situations" [Westera 2001]. The OECD advises to change the focus of education, from knowledge, skills and attitudes into a focus on attitudes, skills, and knowledge: "positive attitudes (such as helpfulness, responsibility, confidence and trust) are the key to the good life or a rewarding job". It is probably attitude that governs the speed of learning [OECD 2002, page 23].

A broad survey for the US government arrives at the finding that learning should address metacognition or reflexivity: "A 'metacognitive' approach to instruction can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving those" [Donovan et al., page 13]. Metacognition helps people to understand the fact that they have certain mental models. It helps them understand the content of their theories-in-use, it can help them to see the difference between the theories-in-use and the espoused theories and to tune behaviour and values. It can even help them to develop their values and their convictions. On theoretical grounds, Gregory Bateson distinguishes three levels of learning [Bateson 1972]. On level 0 (zero) people hardly respond to any stimulus. On level 1 people learn to change their responses, to choose from a wider range of possible actions, sometimes even from a wider range of objectives. Argyris & Schön speak of *single loop learning*. Level 2 learning reflects about the process of learning as it is applied on level 1. Learning on level 2 allows people to find more strategies for their ways of learning. It even allows them to reflect on the values that govern their behaviour. Argyris & Schön call this *double loop learning*.

Then Bateson adds the relevance of context to the discourse. Between mental models, behaviour and context, a closed loop exists. As mental models control behaviour and behaviour shapes context and the perception of context shapes mental models, learning on Level 2 can stay self-validating, self-referential. Level 3 learning supports people to reflect on themselves as part of a system. That perspective changes the awareness who someone is, and on the way someone is. Through that awareness the actual way people are will change. "To the degree that man achieves Learning III, and learns to perceive and act in terms of the context of contexts, his "self" will take on a certain irrelevance." [Bateson 1972, page 304].

Many authors active in deep learning processes in organisations relate to instances where participants can let go of the self, and can look at the system they are part of. Bruce Nixon speaks about 'getting the whole system in the room' [Nixon 1998]. Peter Senge et al. speak in *Presence* about the letting go of the self as a major moment for learning [Senge et al. 2006]. Otto Scharmer shows in *Theory U* how such occurrences allow people to 'learn from the future as it emerges', instead of just learn from the past [Scharmer 2007].

Analogous to these concepts are the observations by Hämäläinen & Saarinen about *systems intelligence*. If people can frame themselves as elements in a system, instead of as isolated entities, than a whole range of new perspectives for the interactions between humans arises. People who take responsibility in one's life, create an enormous potential. Especially, if they take the responsibility not only for one's own thinking, and for what others think and believe, but also for the systems of interaction people live and work in. Leadership studies show that exactly the choice to take such responsibilities enables people to renew the perspectives and practices of many [Hämäläinen & Saarinen 2004].

These observations create a tough perspective for education and training. The challenge is to allow learners to evaluate and develop their ways of thinking and learning. The challenge is also to allow learners to understand that that thinking is part of a greater context. The challenge is to support learners to take responsibility for being-an-element-in-a-system. In this way, the education systems can generate professionals competent to deal with the dynamics of society.

Lisboa, Bologna and Dublin

In the last decade, the European Union reflected about the interactions between the education systems, the workforces and the economy. In the year 2000 the EU started the Lisbon Process. It chose a new strategic goal for the decade: to become the most competitive and dynamic knowledge-based

economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion. Education plays an important role in this. According to the European Council, a common framework should define the new basic skills to be provided through lifelong learning: IT skills, foreign languages, technological culture, entrepreneurship and social skills. Apparently, basic education should not only address discipline based knowledge, it should address a broad set of competencies, which help people to participate in and shape their society [European Council 2000].

All education is in a process of transition. Schools are focusing on a broader spectrum than the transfer of knowledge. Developing skills and attitudes becomes more and more common. Higher education is slowly learning about new didactics and the broader scope of education. In the EU, the Bologna process addresses the quality of higher education. New standards are being developed to assess the quality of the curricula, and to stimulate the colleges and universities to broaden the scope of their education [EC 2007]. In the same process, the institutions are encouraged to address the student's capacity for life long learning. In order to enhance the EU's capacity for innovation all individuals (and all organisations) within the Union are stimulated to improve their capacity for learning, through the reinforcement of their competencies. The Dublin Descriptors which were developed in the context of the Bologna process are an expression of this development. The so called Joint Quality Initiative distinguishes five different fields of competences, needed in any kind of higher education [JQI 2004]:

- Knowledge and understanding
- Applying knowledge and understanding
- Making judgements
- Communication
- Learning skills

Being able to function properly in a profession does not only requires informed knowledge at the forefront of the field of study, it also requires the capacity to apply this knowledge in the context of society, to make judgements about where and when to apply the knowledge, to communicate about it and to enhance the level of all these competences during ones lifetime.

Traditional higher education focuses on the transfer of the core knowledge within a discipline and on the skills to apply that knowledge within the field. That allows the graduates to work in the sector within the given situation. The dynamics within the most sectors of society require professionals to adapt their knowledge, their skills and their attitudes during their career (life long learning).

The education system must support the students in developing these competencies. The focus of the should therefore shift towards the competencies of

- *Making Judgements* (from *capable to gather and interpret data*, towards *capable of critical analysis, evaluation and synthesis*);
- *Communication* (from *capable of sharing information, ideas, problems and solutions*, towards *capable of interaction with members of all parts of society*);
- *Learning to Learn* (*capable of further study within the field*, towards *capable of widening the scope of the profession*).

These three competencies cohere with the three themes discussed before: creating knowledge that matters in decision making, learning to interact with impact, and, to work with self-reflection. The descriptors have less profundity than desirable. Yet, these descriptors will contribute to a shift in the frameworks of the curricula. Figure 2 shows the five descriptors in a spider diagram. The thick lines give an indication of the present situation in the higher education systems. Current institutions for higher education focus on knowledge and skills. Training students in forms of dialogue or forms of metacognition is still rare.

The Lisboa Process and the Bologna Process will lead to a shift in the curricula. The attention for making judgements, learning skills, and communication will grow. These are small steps. In terms of Gregory Bateson, Europe is starting to learn on Level 1 and glances at Level 2 learning.

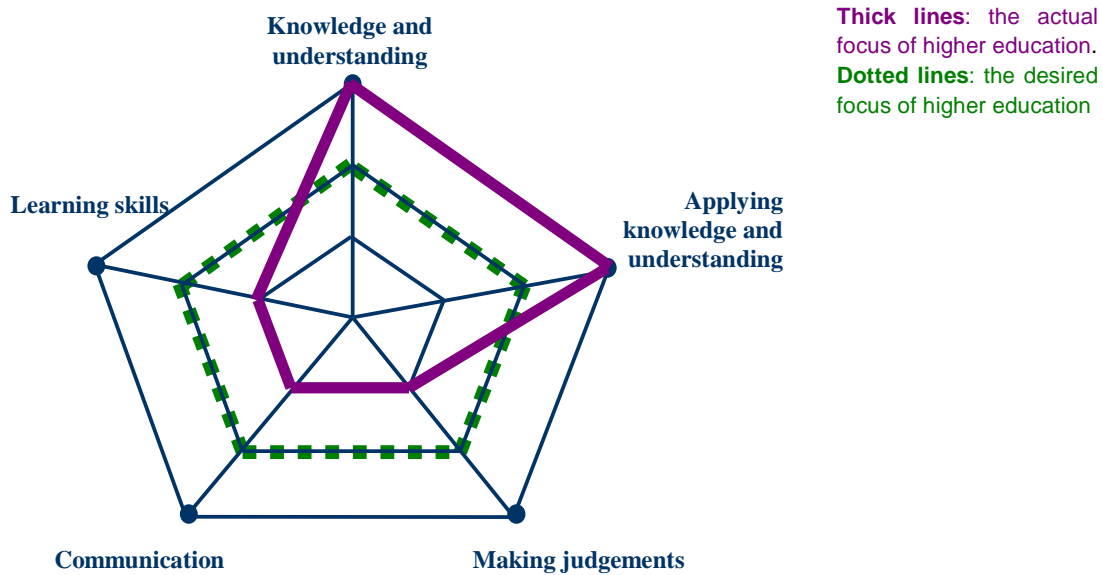


Figure 2: The 'Dublin' Descriptors for Higher Education in the EU

Walk Your Talk

All institutes of higher education are populated by professionals that developed their mental models and their values in those institutes. Hardly any student will enter university or college with the competencies to reflect on her own thinking or her values. The behaviour of people – both teachers and students – in most courses will represent and reproduce the lower levels of learning.

Developing the quality of education can be framed in two ways: bottom-up and top-down. The bottom-up approach is most likely. Most participants in the education systems will have had glances of the higher levels of learning. Agreements to experiment on those levels are easy to get – participants know they can fall back to the old ways. Bottom-up approaches work from the perspective of the existing patterns of behaviour, organisational structures and value systems. Chances are that little results are generated.

The top-down approach is more risky. It requires a strong conviction in the process. Hardly anybody has experience in it. Most experiences of this kind will have a strong personal nature, sharing those experiences is not normal in a professional context. It requires mutual commitment between teachers and students, because such education can only be created in interaction: the mental models, the ways of thinking and learning, the values and aspirations of the teacher will be as much subject of study, as those of the students. The setting needs to be sincere, trustworthy, attentive, respectful and reciprocal. Under such conditions, the zeal of the gatherings shifts from routine to inspired.

Teachers and students active in deep learning processes necessarily learn to create such processes while doing it. The chances for the renewal of education, for the development of the competencies needed in this globalisation, probably lie in the leadership of teachers and students – if they take responsibility for how they think and who they are, as well as for the systems they live and work in. Maybe it is the choice to take responsibility for being an element in these larger systems, which allows students and teachers alike to step into the higher levels of learning. That choice will create self-aware professionals, who create knowledge that matters, through interactions with impact.

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