Transformative Teaching and Learning by Developing

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ABSTRACT

The scholarship of teaching at Laurea University of Applied Sciences is undergoing a great change. The purpose of this article is to reflect the SWOT-analysis produced by 13 teachers at the end of the 2-year PD programme for Transformative Teaching concerning the implementation of the new pedagogical model of Laurea called Learning by Developing which is based on pragmatism. The SWOT-analysis is reflected with the theoretical perspectives of expertise and teaching, peer coaching and pedagogical leadership as well as pedagogical strategy.

Introduction

In this article I will discuss the challenges for the scholarship of teaching as a case-study at Laurea University of Applied Sciences with 8000 students and 500 of staff located in seven campuses around the larger Helsinki metropolitan area in Finland. At Laurea the focus has been shifted from teaching to learning during the past few years and the learning process has become student-centric. The students have genuinely been placed in the core of activities. The pedagogical framework for learning in all degree programmes is called Learning by Developing (LbD). Students' learning is linked to development projects that are rooted in the working life and the students are involved in these projects from the beginning of their studies. Learning by Developing –operational model is a process innovation developed by Laurea staff (see more in Taatila&Raij 2011; Kallioinen 2007; Pirinen&Fränti 2007; Raij 2007; 2006; Learning by Developing Pedagogical strategy 2011).

The theoretical basis and conceptual framework for Learning by Developing pedagogy is deeply rooted in pragmatism which is an action-oriented philosophy of science (Dewey 1929; 1963; James 1907; Peirce 1992). In their article 'Philosophical Review of Pragmatism as a Basis for Learning by Developing Pedagogy' Taatila and Raij (2011) have thoroughly introduced and analyzed the LbD-model as well as compared it to pragmatism. In pragmatism the world is a set of practical actions that are born from thinking. There is no dualism between theory and practice; rather, they are two sides of the same coin (Peters, 2007, 356). In Learning by Developing - model theory and practice are intertwined and should not be separated in the students' learning process. The curricula are delivered from this perspective. According to Taatila & Raij (2011) pragmatic learning is vocationally directed and therefore every learning situation should lead toward increased practical competence. This view is relevant for all types of learning situations, from highly scientific reflections to very practical skills.

The Learning by Developing (LbD) -model is based on authenticity, partnership, experiential nature, research-orientation and creativity. Development projects for renewing workplace practices form the starting point for LbD. Advancement of the project requires collaboration among teachers, students and workplace experts. In addition to producing new

knowledge and understanding, it is essential that a university of applied sciences also creates genuinely new competence and knowledge, new models, new products, new processes and innovations. (Learning by Developing Pedagogical Strategy 2011.) This perspective has strong connections to Bereiter and Scardamalia's scientific work on expertise (1993). The concept of expertise is one of the core concepts in Learning by Developing.

As universities of applied sciences are closely tied with working life, the current operating culture of each field must be integrated in the students' professional growth. This will enable professional knowledge to be constructed in accordance with the requirements of expert roles. The future remains open, but systematic preparation allows at least some of the challenges to be met when planning new curricula, defining the contents of different fields, and training experts and supporting their professional growth.

The main goal in LbD is to produce new knowledge for all partners of the collaborative learning process i.e. students, teachers and working life partners – in some cases also the customers are involved in the process. Collaborative learning in working life environments is a challenging task because it brings a true change in the traditional teaching culture and in the roles of teachers and students. The LbD-model is being constantly developed and it has also been evaluated by an international evaluation team (see more in Vyakarnam et al 2008). For these reasons it is important to analyze more thoroughly the teachers' experiences and perspectives delivering the curricula in the LbD-model.

The *Learning by Developing* operational model (Fig.1), i.e. development-based learning challenges traditional teaching and learning activities. However, the competence-based curriculum reform in 2004-2006 has better enabled the establishment of the LbD operational model in all curricula of our university (Kallioinen 2007). The process of change with the new competence-based curriculum and the LbD-model has been particularly hectic for the teachers at Laurea – a fact that the external assessment group of the curriculum process also points out in their report (Auvinen, Peisa & Mäkelä 2007).
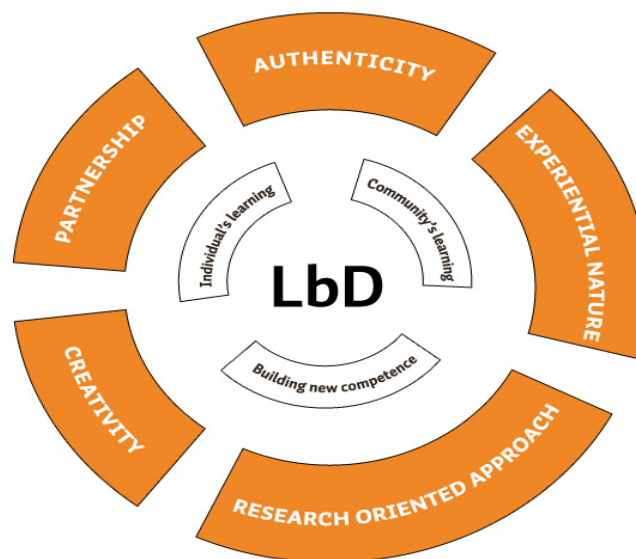

Figure 1. Learning by Developing (Learning by Developing Pedagogical strategy 2011).

The objective of this article is to discuss aspects of pedagogical expertise that are related to the Learning by Developing (LbD) model, and, in a larger context, to reflect on their significance in teaching. The teaching community at Laurea consists of 300 lecturers and principal lecturers who are called teachers. This small-scale, qualitative research comprised 13 teachers, who produced a written SWOT-analysis (strengths, weaknesses, opportunities, threats) in September 2006 for the closing event of the Professional Development (PD) training programme on Transformative Teaching. The two-year programme was organized in cooperation with the Research Centre for Vocational Education at the University of Tampere. The teachers had piloted, applied, developed and launched the LbD model in their own teaching, thus significantly promoting the development of the new model within a practical context. The SWOT-excerpts selected for the article have been transcribed and the data was processed by means of interpretive content analysis (Denzin & Lincoln 1994). The SWOT-analyses are numbered from one to 13, and the selected excerpts are coded accordingly. In the SWOT-grids produced by the teachers there were six distinctive categories to be found:

- **The Learning by Developing -operating model within the teaching environment of Laurea**
- **Teacher's work and competence in the LbD model**
- **Teachers in LbD development projects**
- **Teachers' expertise-building**
- **Opportunities for building tacit knowledge in a teaching community**
- **Teacher's professional growth**

These categories will be further discussed and analyzed in the following chapters.

Being a qualitative research, the interpretation of the data has naturally been influenced by my own background and history in pedagogical development. The methodical structure for this article covers themes and views arising from the data being analysed and interpreted, which are then linked to theoretical perspectives. The results promote general understanding on the scholarship of teaching at today's higher education institutions. Reflective dialogues were created between the theoretical perspectives, research data and its everyday context. Readers can thus reflect on the dialogues and consider their impact on teaching.

Direct, generalizable conclusions can obviously not be drawn from these qualitative research results. However, evaluating the importance of the results and applying them to equivalent operating environments should bring out a number of new thoughts and observations, which can have a clear practical impact on development activities. One of the goals of qualitative research is to develop a theory, and at the end of the article I will present a figure highlighting the factors that promote learning within the LbD model. The figure includes results from my previous research and applies to the observations arising from this article.

Transformative teaching in Learning by Developing

In the pedagogical reform at Laurea the last decade for the scholarship of teaching has been marked by change and development. In delivering the competence-based curriculum and

implementing the LbD-model the teachers continuously face new, unexpected and specific challenges, which are solved according to each situation. There are several questions to be asked:

- What elements arise from the degree programmes' past?
- What type of knowledge base and cultural structures have prevailed in different professional fields?
- What has e.g. nursing expertise been like in the past, and how is this still reflected in the teaching of this profession?
- What would be the future expertise in nursing and how are these perspectives embedded in the curriculum?

Institutional and educational culture are reflected in their respective practices, expressing the behavioural patterns, habits, methods and views where learning takes place, with teachers and students as participants. The teacher's ability to reflect the past constructively is important when looking for answers for present and especially future challenges and in creating new pedagogical models for future generations.

Teaching and its challenges can vary a great deal according to the operating environment. But regardless of the context, the basic function of teaching is facing individuals in the learning environment, communicating with them and creating an atmosphere that promotes learning. Above all, teaching is an interpersonal profession characterised by networking. It is also marked by a research-oriented and developmental approach, high-level professional knowledge and pedagogical expertise. Self-awareness lies at the heart of teaching, enabling constructive tutoring and an active role in the teaching community and in the networks.

THE LEARNING BY DEVELOPING -OPERATING MODEL WITHIN THE TEACHING ENVIRONMENT OF LAUREA	
Strengths: - *A clear notion that LbD supports the students' learning -> calm and trusting attitude (SWOT 6)* - *The teacher can implement the study unit in an innovative way (SWOT 13)* - *The curriculum enables partnership and expertise among teachers (SWOT 4)* - *Independent work model (SWOT 13)* - *Pragmatism and knowledge of the workplace (business practices) (SWOT 10)*	*Weaknesses:* - *The teacher is unable to motivate students towards independent work,* - *acceptance of all workplace projects and turning into consultancies. (SWOT 7)* - *Incoherence of the LbD model among staff (SWOT 4)* - *The old model is still fresh in the mind and easily compared to. Trying to fit the previous curriculum into the new one (SWOT 11)*
Opportunities: - *The LbD model responds quickly to external changes (SWOT 13)*	*Threats:* - *Fear that in reality LbD will remain just a shell (SWOT 6)*

- *No ready-made identity or operating model, creating something new (SWOT 1)* - *Authentic team work, cooporation with teachers from various fields -> enabled by projects within teaching (SWOT 3)*	- *Growing tired of development and constant change (SWOT 8)* - *Too traditional a mind-set?! (SWOT 3)* - *Difficulty in giving up old thinking (SWOT 11)* - *Partner companies do not show commitment (SWOT 10)*

It can be seen in the analyses that the LbD-model has great strengths and opportunities, as well as threats and weaknesses. The strengths and opportunities are mainly linked with the feeling of success experienced by teachers and the energy this generated, whereas the weaknesses and threats stem from incomplete structures and conventional practices originating from the traditional teaching culture.

2.1 Teaching in the LbD model

As a result of the LbD model, teachers' roles have been redefined and strategically redeveloped.

> *The competences, roles and activities of the staff as a whole are developed in the context of the LbD model in a way that best facilitates students' learning. Laurea staff's attitude to students is one of equality and collegiality. Laurea's teachers act as*

> - *experts in their fields,*
> - *educators,*
> - *professional growth coaches,*
> - *researchers and developers,*
> - *network experts, and*
> - *regional developers.*

> *These different roles can take on a different significance depending on the circumstances and job positions. The activities are characterised by stronger links to the professional world and a communal and network-based way of working within Laurea and with stakeholders. In Laurea's operating environment, carrying out an influential development project requires various kinds of competences, networking expertise, the ability to share and refine competence, and different roles of responsibility. Preparation of and participation in projects that have outside funding has led to wider and more diverse roles. (Learning by Developing Pedagogical Strategy 2011.)*

TEACHER'S WORK AND COMPETENCE IN THE LBD MODEL	
Strengths:	*Weaknesses:*
- *ability to utilise own, solid workplace competence (SWOT 7)* - *optimally, everyone learns (SWOT*	- *easy to fall back to old routines that you feel work well (SWOT 12)* - *is my thinking traditional after all?*

7) - *internal motivation, enthusiasm and creativity, courage and positive attitude (SWOT 5)*	*(SWOT 9)*
Opportunities: - *Laurea's work atmosphere, and facilitating, trusting, authorising and interesting management style (SWOT 1)* - *hopefulness and positive flow. Releases creativity and the courage to try things. (SWOT 5)* - *better development of workplace competence than before (SWOT 13)* - *new teaching style and curriculum allows teachers to produce more holistic learning for students -> learning of skills/knowledge that weren't even expected (SWOT 8)*	*Threats:* - *top-down management model is not in the spirit of LbD (SWOT 2)* - *"high speed" -> rush to try too many things -> students may be confused (SWOT 8)* - *projects increase the teachers' workloads (SWOT 7)* - *limits of own capacity -> do I have the strength to follow the flow of innovation and renewal? -> Will I sink? Or swim? (SWOT 6)*

Some of the topics mentioned by the teachers can well be considered challenges to pedagogical leadership, because every teacher commits to the organisation's operations and strategic choices through his or her closest manager. In his article "Academic Leaders as Thermostats", Kekäle (2003, 286-287) pointedly brings attention to the significance of pedagogical leadership in the higher education community, especially from the point of view that the pedagogical leader does not need to control or lead everything, but should instead be able to focus on certain strategic alignments in leadership. Leaders should support everyday work and maintain a creative work environment, while ensuring that actions are balanced in relation to set targets. In various change periods, leaders should situationally concentrate on supporting, leading and encouraging their teaching staff towards the chosen pedagogical objective.

2.2 Development projects in the LbD model

In the Learning by Developing Pedagogical Strategy there is a definition on what is meant by a development project in LbD-model. In these development projects all the five dimensions of LbD should be present (Fig.1).

> *When the learning environment is a RDI project aimed at solving a workplace problem or developing better competence, the student's work is based on both learning objectives and project objectives. A broad base of courses which are in line with the competence-based curriculum, a focus on projects in practical training, or a thesis - together these provide opportunities for simultaneous, holistic study of the subject and for development work based on project objectives. Different study units and their objectives can also be combined in different ways within a project to provide a sufficient base on which to work*

from. Alternatively, the learning structure can be based on a curriculum that is guided by project activities, or a curriculum designed for small groups or individuals.

In addition to the chosen objectives, projects can highlight new, unexpected areas for competence development, bringing the complexity of the real-life workplace to the fore in learning. This allows learning to take place in an authentic innovation network. Learning by Developing in a project environment facilitates learning which exceeds and surpasses the glass ceiling formed by curricula, lectures and textbooks, and it enables the student to acquire deep, personal competence in his or her chosen field. Productivity-related requirements in project objectives also guide students towards a results-based and target-oriented working method. (Learning by Developing Pedagogical Strategy 2011.)

TEACHERS IN LBD DEVELOPMENT PROJECTS	
Strengths: - *optimally everyone learns (SWOT 7)*	*Weaknesses:* - *projects increase the teachers' workloads and may even burden them with financial liability (SWOT 7)* *- how do you ensure something is learnt? (SWOT 13)*
Opportunities: - *more and more partners -> more projects -> teaching is more workplace-oriented (SWOT 10)* - *students work on genuine workplace projects, and that helps them find employment (SWOT 7)*	*Threats:* - *scientific orientation reduces when projects are so practically oriented (SWOT 7)* - *unless upper secondary teaching changes, then incoming students will be demanding traditional teaching methods (SWOT 7)* - *large-scale projects may be difficult to gain (SWOT 4)* - *in project-based studies, responsibility for completing the work is left with the teacher in charge (SWOT 3)* - *students find it hard to assume the correct mind-set and drop out (SWOT 7)* - *suitable projects to act as learning environments are hard to find (SWOT 11)* - *the organisation does not offer enough support for projects (SWOT 12)*

Teachers play a crucial role in producing new knowledge and competence in these development projects, and from their point of view such projects involve numerous threats and weaknesses.

Gibbons et al. (2000) considered the production of knowledge and its dynamic nature in today's society in their book The New Production of Knowledge. The points of view and thoughts regarding the dynamic changes in knowledge production presented in the book fit in very well with the assessment of the knowledge produced in Laurea's curriculum-related development projects. Gibbons et al. (2000, 3-6) examined the knowledge produced in applied research in the so-called transdisciplinary framework. In their view, the knowledge produced in applied studies is based on wider shared deliberation and analysis. Knowledge and competence are produced through continuous dialogue, and cannot be produced without involving the interests of the participants in the work. From the point of view of teaching at Laurea, this emphasises the need for networking competence for teachers, as well as a new concept of knowledge in which competence and knowledge are co-created. This points out the significance of the authenticity and partnership that lie at the heart of LbD, and raises the importance of transformative teaching in this kind of participatory, processual work.

Building expertise

In relation to teaching at a university of applied sciences it is essential to consider the teachers' own expertise and the concept of expertise in the institution's multidisciplinary contexts. The modern innovation platforms are operated in shared expertise and networks, without forgetting the challenges of leadership. Learning to learn, interaction skills and continuous self-development are some of the key factors in the success of students in their studies and teachers in their work.

TEACHERS' EXPERTISE-BUILDING	
Strengths: - *ability to utilise own, solid workplace competence (SWOT 7)* - *confidence in myself and my competence (SWOT 8)* - *professional competence, solid work experience (SWOT 1)* - *subject-specific competence (SWOT 9)*	

3.1 Teachers' tacit knowledge in building expertise

A very large part of professional knowledge is in the form of "tacit knowledge". Sternberg & Caruso (1985) proposed more than 20 years ago that a key factor in a teacher's job is the ability to acquire tacit knowledge. In their view, failure to acquire tacit knowledge can quickly lead to frustration or exhaustion, which poses grave challenges to providing orientation for new teachers. According to Sternberg and Caruso, the concept of tacit knowledge can also

explain some people's exceptional success in certain tasks. In the LbD model, the tacit knowledge held by teachers is a challenge that must be tackled particularly strongly in staff development. We must consciously promote the formation of structures and situations in which individual and communal tacit knowledge can deliberately be brought to light and assessed together. Development seminars and sessions form part of this process of making tacit knowledge visible at Laurea. Nonaka and Takeuchi (1995) stress the importance of the process.

Teachers' self-development has always been considered very important. Some of the crucial elements in making tacit knowledge explicit is the collaboration between teachers, openness and trust, as well as collaborative knowledge-building in equal interaction. In terms of organisation, communal work must be facilitated in systematic ways, and should not be left to the individuals' initiative. If the work environment's atmosphere is not conducive to openness and trust, it is very likely that most tacit knowledge will remain unidentified and invisible. Particularly in terms of orientation for new teachers it is extremely important to understand the meaning of tacit knowledge as a part of communal work and getting familiar with work. If the acquisition of tacit knowledge by new teachers is consciously promoted, they are very likely to find it easier to start working in the new environment, and to commit to their work. This turns the teachers' expertise into shared capital, which also furthers the development of the institution's operating culture.

OPPORTUNITIES FOR BUILDING TACIT KNOWLEDGE IN A TEACHING COMMUNITY	
Strengths: - *interest in others and their thoughts (SWOT 6)* - *shared action increases interaction skills (SWOT 13)*	*Weaknesses:* - *actions not measuring up to words (SWOT 12)*
	Threats: - *collaboration between teachers does not work, being prevented by old-fashioned resource-based thinking (SWOT 7)* - *double morals in the community (superficiality, facetiousness) (SWOT 6)*

The community in which teachers work plays an important role in developing teachers' expertise. Bergen and Engelen (2003) have used peer coaching in their endeavours to promote teachers' professional growth. They recorded 45 coaching sessions and analysed them using qualitative methods. In their view, peer coaching is a significant learning opportunity for both parties.

The concept of coaching is defined as follows by Bergen and Engelen (2003):

> ...a form of professional cooperation and support, which promotes professional development and skills through experiments, reflection, exchange of professional ideas and problem solving. Peer coaching is a process which is based on mutual trust and where two or more colleagues cooperate in order to reflect their own practices, try to acquire, enlarge or refine (new) skills, exchange ideas, teach each other, do action research in their classrooms and to try to solve problems encountered at work.

According to Showers and Joyce (1996), there are three objectives for peer coaching:

1. teachers work together to increase their own professional competence.
2. teachers form a shared language and frame of reference for the ideas that are essential for analysing new knowledge and skills.
3. reciprocal coaching offers a follow-up system that is essential for acquiring new skills and strategies (ref. in Bergen and Engelen 2003).

According to this research, peer coaching stimulates and supports work related to teachers' professional development, staff development and institutional development. Peer coaching can be seen as a strong intervention on behalf of encouraging teachers to reflect on their performance in their professional practices, in order to find out what generates good teaching. (Bergen and Engelen 2003.)

Peer coaching given by teachers who have participated the PD in Transformative Teaching has now been included in the LbD model's internal training processes, with very good results and experiences. The idea of peer coaching is very constructive and it could be offered more widely and systematically as a part of professional development for higher education teachers. Nowadays, teachers in most universities of applied sciences are used to working together, and the learning environments are open, which is a good starting point for peer coaching. All that is then needed is enthusiasm and goodwill.

3.2 Teacher's professional growth

The professional development of teachers is closely linked to their personal expertise and own professional growth processes. A communal growth process in teaching is also inevitable, and, like all growth processes, it involves growing pains. The implementation of a new operating model requires numerous and diverse experiences, from which certain rules and laws can eventually be derived to facilitate the management of learning processes and the creation of new competence in a shared process. The significance of experience in learning has been studied for instance by Ben-Peretz (2002, 318-319), who particularly emphasises interaction and its influence on how learning can be derived from experiences.

TEACHER'S PROFESSIONAL GROWTH	
Strengths: - *PD training was very beneficial; project completed according to*	

LbD has been reported on (SWOT 4) - *knowledge of LbD model brought by PD studies (SWOT 7)* - *teaching at the beginning of the new curriculum is good for teachers -> ability to discuss the new learning model at Laurea immediately and to implement the "Project" using the (online) LbD tool (SWOT 4)* - *own experiences of joy of learning/insight, and of deepening understanding (SWOT 6)* - *shared action increases interaction skills (SWOT 13)*	
	Threats: - *confusing, tiring, projects fail... (SWOT 12)*

No pedagogical operating model can be assimilated by reading or hearing about it in books or presentations. In development projects, every participant must acquire relevant experience, which is turned through individual and shared reflection into personal wisdom on the best ways to promote learning in new operating methods and networked processes. Only by acquiring experience can we increase competence. All this requires time and persistence, reflecting on each teacher's teaching identity and expectations regarding the job. It also requires a special sensitivity for identifying unpolished areas, tensions, phenomena in group dynamics and diverse development challenges in the learning situation. Joy of learning and enthusiasm are usually so evident that they energise the whole group.

Expert teacher:

- participates personally in lifelong learning
- is an expert in his/her own area
- has a significant amount of pedagogical content knowledge
- understands the significance of changes in teaching and learning
- has excellent social and interaction skills
- understands and supports the students' professional and personal growth
- utilises the learning opportunities available in the labour market and in networks
- can develop the workplace using diverse projects and initiatives
- can create new learning environments that improve and promote the participants' creativity
- has a research-oriented, developmental approach to work

-   works actively, takes initiatives and collaborates in the learning community

3.3 The nature of expertise

In research discourse, expertise can be seen from different perspectives. According to Hakkarainen, Palonen and Paavola (2002), research on expertise can be classified from three viewpoints:

• expertise as information gathering (cognitive view);
• expertise as participation in an operational culture (participatory view); or
• expertise as knowledge creation (creative view).

These perspectives are complementary, but the creative view is a new kind of approach that combines the best parts of the cognitive and participatory views and adds to them the idea that expertise contains a strong creative element that allows for competent, situation-appropriate actions in a renewable context. Experts work flexibly and intuitively and do not need to stop and think what theory should be applied to each task. (Tynjälä 2008; Helle, Tynjälä & Vesterinen 2006.)

In theories that emphasise the knowledge creation aspect of expertise, Bereiter & Scardamalia (1993) combine the individual and social points of view, whereas Nonaka & Takeuchi (1995) focus more on the social approach. According to Hakkarainen et al. (2002), a shared operating culture could be called an innovative information society. (Tynjälä 2008; Kallioinen 2007.)

Discussions on expertise usually draw attention to knowledge, skills and experience. Experienced experts identify not only theoretical and practical expertise but also the social and ethical dimensions of expertise, as well as values and attitudes. Expertise is often also linked to detailed mastery, in-depth knowledge, extensive skills and experience in a specific field. Research in the field and the ability to analyse and develop operations based on research are a part of high-level expertise, as is the ability to teach. In terms of problem-solving ability, experts can solve diverse situations optimally and relatively quickly, taking into account the prevailing circumstances. In addition to details, experts must understand the wider contexts and causal relationships behind things, and be able to link phenomena to their broader frameworks.

From the point of view of practical and functional expertise, experts can carry out most tasks, matters and functions related to their fields by calling on their substantial and relevant experience; this is not always related to technical performance, but to holistic development and renewal of the field. Practical expertise also has the ethical dimension, as every individual's values and attitudes are reflected in practical action. Through experience, the ethical and social dimensions of expertise become emphasised as the individual operates in diverse communities and networks.

In its social dimension, expertise consists of communal activities in a network, which are recognised by the work community and external parties, and also tied to time and place. Expertise is only defined through interaction between the individual and the operating

environment, so in that sense expertise is relative. At an organisational level, a group of people can together form expertise.

What knowledge-based and skill-based professional competence have in common is that they are evident and recognised by the surrounding world. They are related to continuous self-development through reflection, and systematic, target-oriented renewal of one's competence. Expertise also means extensive knowledge base and a large amount of data related to overall professional competence, as well as in-depth familiarity with a specific area. This relates to the ability to understand and process information, comprehension of matters and their contexts, in-depth competence and logical handling of issues. Experts recognise the limits of their knowledge and competence and are not afraid to admit it. Practical expertise is only amassed through experience and action. Practical expertise involves the ability to manage information, apply theoretical knowledge in practice, good knowledge of practical matters and the ability to teach in practice. It is also assumed that experts have significantly more experience than the average.

Expertise is related to quick and extensive problem-solving abilities, the capacity to understand and form the big picture, finding, identifying and understanding causal relationships, logical reasoning and a good learning ability. Generally speaking, experts are very interested in their own fields, highly self-directed and able to carry out self-evaluations and develop their work and their fields. Most expert tasks require the ability to provide advice and solve problems in collaboration with other experts, which means that team work and interaction skills are needed.

Teaching as shared pedagogical leadership

This section examines pedagogical leadership especially as a communal and shared phenomenon involving all the teachers in the learning community. Shared leadership in teaching must be accepted as an activity in which the majority of staff participates rather than referring to specific tasks belonging only to a few people or related to specific job titles (Patterson and Rolheiser 2004). In their research entitled "Teachers Leading and Changing: Supports for Teacher Leadership in Large-Scale Reform", Patterson and Rolheiser (2004) study the knowledge, beliefs, actions and attitudes that promote or prevent teachers' development as responsible leaders of their own development, and as facilitators of change. Participants in the research clearly indicated that attaching communal focus to teaching and learning was crucial in encouraging teachers to take on leadership roles in developing professional learning communities.

The following key challenges were identified in building shared leadership in teaching:

- limits for reforming an operating culture
- regional support for shared leadership in teaching
- commitment and support of reforms
- professional development and possibility of using external experts
- independence of educational institution
- energy for change
- knowledge of the change process

- committing to change and to operating culture reform
- building performance on shared leadership
- responsibility and high expectations regarding colleagues' learning
- situational awareness and adaptation
- modelling communal work processes

In shared teaching leadership, teachers especially need a clear, shared role definition for building performance through communal and professional relationships. (Patterson & Rolheiser 2004.)

Careers and commitment in teaching have been investigated, among others, by Little & Bartlett (2002) in an article related to teachers' participation in ambitious innovations or extensive reforms. The outcomes of the research indicated two types of results (cf. e.g. Huberman 1989; 1995) depending on whether commitment to extensive reforms in an institution had produced positive or negative effects on the development of teaching in the organisation as a whole. An ever larger amount of research outcomes seems to indicate that extensive reforms contain paradoxes: on the one hand they stimulate the teachers' interest, but on the other hand they can lead to exhaustion; they open some learning opportunities but break down others; they strengthen some professional relationships but can also fuel professional conflicts (Little 2001).

Strengths: - *courage to try new things; openness (SWOT 8)* - *interest and commitment (SWOT 2)* - *courage and trust in the fact that things can be done differently (SWOT 11)*	
	Threats: - *organisation takes up resources, not enough energy (SWOT 12)* - *difficulty in giving up old thinking (SWOT 11)*

According to Little and Bartlett (2002), the participation of teachers in ambitious innovations or extensive reforms can offer excellent opportunities for professional development, but could also lead to long-term career disillusionment. In their view, reforms must not be left half-way; particular attention should be paid to the teachers' roles as the true implementers of the reform, and the reform process should be subjected to close scrutiny. This may prevent the active reformers' original enthusiasm from turning into growing dissatisfaction.

	Weaknesses: - *loss of motivation (SWOT 5)*
	Threats:

| | - *burning out -> job expanding until workload is too high <> looking after occupational well-being (SWOT 5)* |
| | - *time and work are difficult to manage as work becomes even more fragmented (SWOT 11)* |

Reforms offer many kinds of opportunities, and in that situation it is important that the whole staff commit to the reform and its changes. In Laurea's extensive teaching community, reforms are processed very closely, because they affect everyone's daily work in one way or another. Commitment to joint decisions takes place particularly through the closest superiors, so leadership challenges lie in accepting strategic choices and sticking by them while encouraging and supporting others in doing so. Research has shown (Auvinen, Peisa, Mäkelä 2007) that the reform has taken off well, but that a lot still remains to be done and that particular care has to be taken of the staff to ensure that the risk of burnout is not hidden in the dynamic change phase.

Competence development and promoting learning in LbD-model

In his or her work, the teacher must always strive to achieve good, high-quality planning, implementation and evaluation of teaching; this also applies to the LbD model. As a summary of this article, I have selected some of the factors that promote learning in the LbD model in Figure 2 below. In the teacher's job, subject-specific competence is an important factor, but it is joined by interrelational competence, including the perspectives of interaction, learning atmosphere and working as an educator. It also reflects our time, in which top-level technical expertise is not enough; human skills are needed in order to promote high-quality learning and to produce good education.
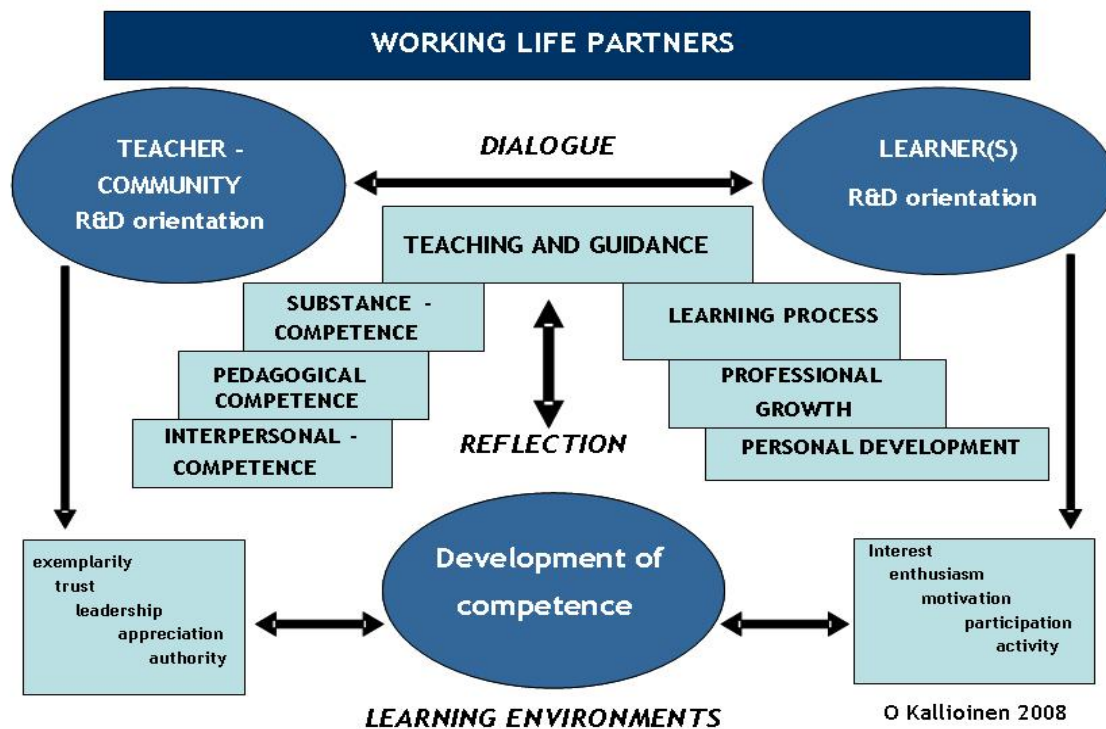
Figure 2. Factors that promote learning in the LbD model

In the teaching community the crucial factors are not only subject-specific competence but also a research-oriented, developmental approach, interaction, encountering people dialogically, and having the pedagogical competence. The qualities of an expert promote the implementation of good, high-quality teaching, and foster the students' motivation and participation.

From the point of view of students, the emphasis is on guidance, the learning process, communal reflection, professional and human growth, and a research-oriented, developmental approach to work. In the learning process of the students there is a clear focus on producing competent experts and professionals for working life with strong generic skills (Kallioinen 2010; Taatila 2007). For the past three years the employment rate of Laurea UAS graduates has been the best or second best in Finland which also shows the impact of the pedagogical model.

Conclusion

In the vision building process Fullan (1994) emphasizes that complex dynamic circumstances require plenty of reflective experience before a reliable vision can be formed. On the other hand, a shared vision must be developed interactively between the community's members and leaders, which takes time. Visions are best achieved by avoiding to tie them down to a specific form at too early a stage. It is also very important in change processes to create and maintain relations to the operating environment and responsible organisations. It is crucial to

look to their expertise and existing reflective experience to make information flow as smooth as possible, and in order to reach maximum benefit from various research and experiences of similar change processes. Only by networking as extensively as possible and in as many directions as possible can we stay up to date in today's information flood and changing environment. It is very fruitful to consider these points of view expressed by Fullan in relation to the challenges brought by the vision of LbD model, because Laurea's change processes have many similarities with other extensive changes in other organizations that can be learnt from.

In defining teaching at universities of applied science, the most important thing is not to find permanent solutions or ready-made answers. Asking questions, debating and discussing incomplete thoughts leads to dialogue and communal knowledge-building, which in today's networked operations produces dynamic, changing and renewing impressions of what it means to be a teacher at a university level. Room must also be made for failure and learning from mistakes - one's own or a group's. Defining the scholarship of teaching is joint, democratic and simultaneously extremely challenging.

At the heart of communality lie team spirit, companionship, collegiality, identifying diversity as a resource rather than a threat, and trust. Fostering and promoting trust must be placed right at the forefront, because without communal trust, teaching cannot genuinely be reformed at the level that Laurea wants. One of the embodiments of trust and team spirit is the idea that no teacher is left alone to cope with everyday challenges; instead the culture of care and concern promotes everyone's work well-being and prevents burning out. This is also a challenge for managers in terms of pedagogical leadership and human leadership, if they are to build creative new structures that support the teaching community.

The purpose of this article was to open some doors into the phenomenon of teaching, where we work together to create the reality of teaching and strive to understand and evaluate the challenges set for it from our own perspectives. Everyone participates in this knowledge construction from his or her own circumstances and creates a dialogic relationship with the views and interpretations presented here. It is only a dialogic, open relationship with scientific research that allows for innovative knowledge and new competence to be created, and for meaningful links to be found with one's own world and reality. I hope the thoughts and ideas evoked by this article will come to life and extend into each reader's individual operations in diverse teaching environments.

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