Academic Vocational Training: Bridging the gap Between Educational Space and Work Space

Søren Willert, Hanne Dauer Keller and Nikolaj Stegeager
Aalborg University, Denmark
swi@learning.aau.dk
hdk@learning.aau.dk
nikolaj@learning.aau.dk

Abstract: Danish society puts a high value on education which is traditionally seen as a crucial vehicle for development in all spheres of social and economic life. Large sums are spent on work-related adult learning, an important example being academically based masters programs. Yet, the actual effects of such educational investment in terms of improved workplace efficiency remain obscure both with respect to the organization and the individual. The three authors of this article are all involved in planning, managing and teaching at masters programs at Aalborg University, Denmark. Programs are carefully designed with a view to strengthening the link between the educational space (the curriculum and academic priorities) and the students' habitual working environment (the organizations from which they come). Starting from a theoretical viewpoint based on traditional learning theory, supplemented by research in the field of transfer of training, as well as on Donald A. Schön's classic work on practicum as a crucial component in the training of practitioners, our article presents, and illustrates with examples, a framework for designing educational programs which can help make academic teaching relevant to production-oriented life in organizations. The article may be read as a statement from which criteria for evaluating the said masters programs can be generated.

Keywords: innovative teaching, educational partnerships, workplace development, transfer of training, practicum, reflective practitioner, Action Research, organizational coaching

1. Introduction

In this article we present a theoretical framework for providing guidelines to the way educational institutions should interact with public and private workplaces. The aim is to improve the quality of their continuing efforts at skills development and professional training. Our main focus is on advanced masters programs where experienced managers and highly skilled specialists acquire new knowledge and methods in order to improve their own work practices and those of their organizations. Many resources are devoted to train professionals through such programs. In our role as professionals responsible for planning, developing and implementing masters programs, we regard continuous dialogue on result optimization for the participants and their workplaces as essential.

Too often, theoretical perspectives encountered by students of masters programs prove difficult to translate into everyday, work-related practice. Our article aims to show how new ways of structuring relations between educational institutions and workplaces can enhance the probability that individual learning acquired in an educational setting will in fact lead to improved organizational performance. Thus, our article may be read as a statement from which criteria for evaluating the said masters programs can be generated.

The article is divided into two main sections, the first being mainly concerned with theoretical issues and the second with the realization of these theories in practical outcomes.

An introductory overview of the interaction patterns that habitually govern the relationship between masters program stakeholders leads us to formulate ideal guidelines for building effective learning relationships. These guidelines form the backdrop to the four thematic sections of Part One. First we show how we strive to integrate academic culture, the professional aspirations of our students and workplace perspectives in our curriculum activities. The following section presents a framework for a contextual understanding of learning processes. Then we present a partial reinterpretation of issues related to the concept of learning transfer. Finally we describe how Donald Schön's ideas about reflective practicum have inspired us to include the students' workplaces as a distinct learning arena in our educational programs. Part Two illustrates how such ideas are translated into educational practice.

Overall, the article aims to demonstrate the need to strengthen mutual exchange between educational institutions and workplaces if academic masters programs are to match the legitimate hopes, expectations and economic resources invested in them.

2. Vocational training and education in Denmark

Vocational training and skills development have boomed during the last three decades. Concepts like organizational or lifelong learning have become part of everyday language. During this period, investment in vocational training has risen steadily. In 2004, the Danish Employers' Association issued a report that identified Denmark as the European Union country with the highest relative investment in this sector of education. Almost 5 billion Euros were earmarked for vocational training in Denmark during 2004. Yet, according to the same report, little is known about the effects of this substantial investment.

A possible explanation for this empirical gap may be that Danish organizations and educational institutions are linked to each other by an unacknowledged pact of mutual non-interference. Organizations hand over responsibility for continuous workplace training to external educational agents: "That's their job, let them deal with it!" Equally, educational institutions do not take a real interest in life as it is lived in society at large. Nor do they concern themselves with the peculiar logic underlying organizational decision making. Intellectually speaking, such real-life concerns may seem insufficiently challenging: "Our job is not to give them 'more of the same', but to help them move beyond the limitations dictated by short-term, pragmatic or profit-related concerns." Thus both parties fail to become truly acquainted and engaged with the other.

In the same way, traditional scholastic thinking has viewed training and learning as issues strictly within the remit of educational institutions. This scenario is illustrated in figure 1:
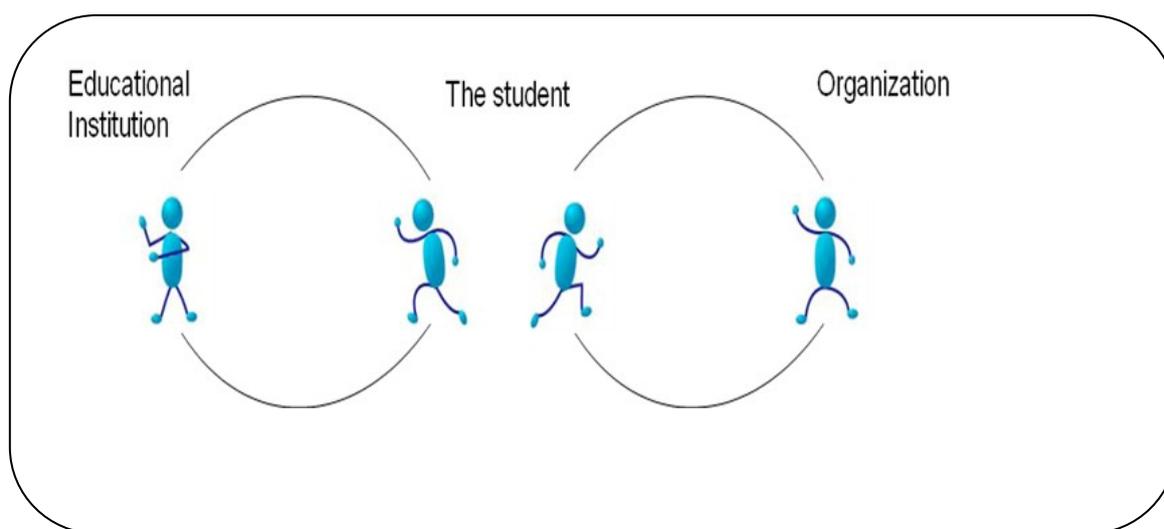

Figure 1: Traditional learning relationship in vocational training

Although supported by tradition and habitual thinking, the sketched picture is clearly inadequate for dealing with complex educational policy objectives. Education-based training and learning involve a multitude of actors in multiple contexts. Co-ordination does not come by itself. Thinking in generalized categories, such as educational institutions, the labor market and masters program students, does not suffice. Differentiation is needed. Each individual stakeholder system (the concrete training program, the specific workplace, the actual student) is educationally motivated by its own specific logic. Educational providers must ensure that all involved parties have a chance to voice their concerns and interest, in order that the path followed enables these to be met.

To be educationally effective, academic masters programs must ensure that the particular logic and goals of each stakeholder are taken actively into account. Optimizing active and inspirational exchange between the involved parties must become integrated in program planning and implementation as depicted in figure 2.

In this revised scenario-model, education-generated learning has no natural or pre-ordained path. Training and learning are joined in a continuous, circular process in which participants move back and forth between different situational contexts: the workplace, the classroom and personal reflection. Unpredictable exchange patterns simultaneously produce changes in all learning contexts.
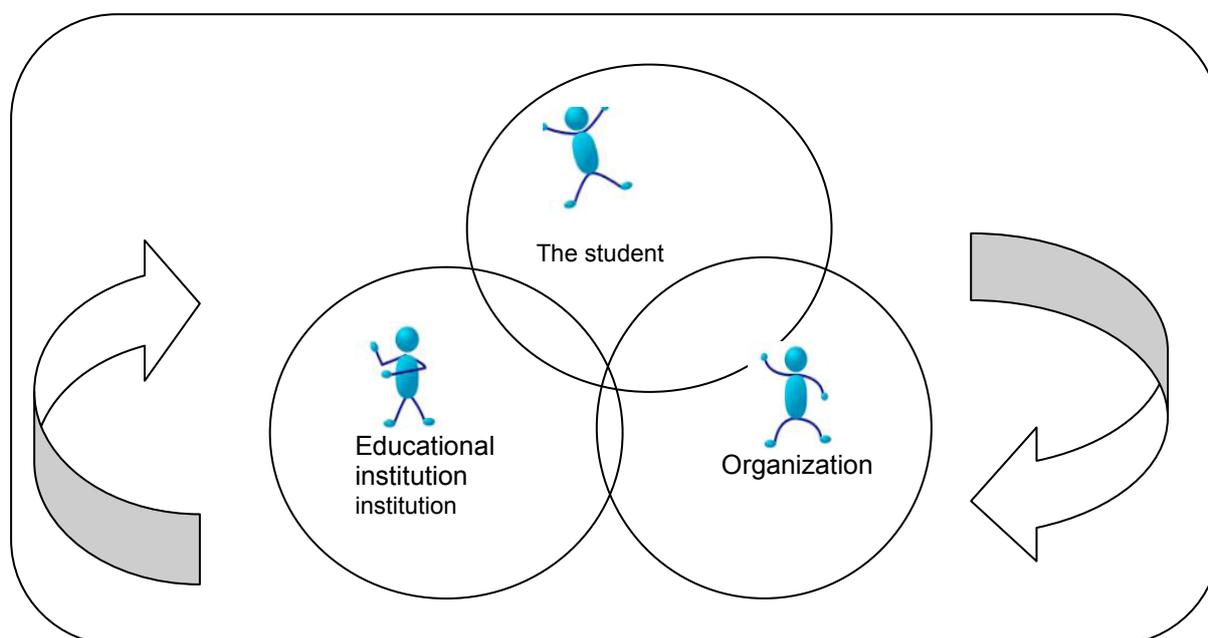
Figure 2: Dynamic relational field of learning

The remaining part of this article will focus on the theoretical and practical implications of this approach. We start by briefly showing how we strive to integrate stakeholder perspectives in the way one particular masters program is planned and implemented.

3. Integration of stakeholder perspectives in classroom and curriculum

Traditional scholastic thinking views the classroom as a place specialized in the delivery of conceptual learning directed at students' brains. When it comes to vocational training, learning through apprenticeship and supervised practice have typically been absent in university-based programs.

In one advanced masters program for which we are jointly responsible, this pattern is challenged. In our program planning we operate with three learning arenas. Each learning arena is designed with a view to catering for the educational needs of one of the three stakeholder positions shown in figure 2.
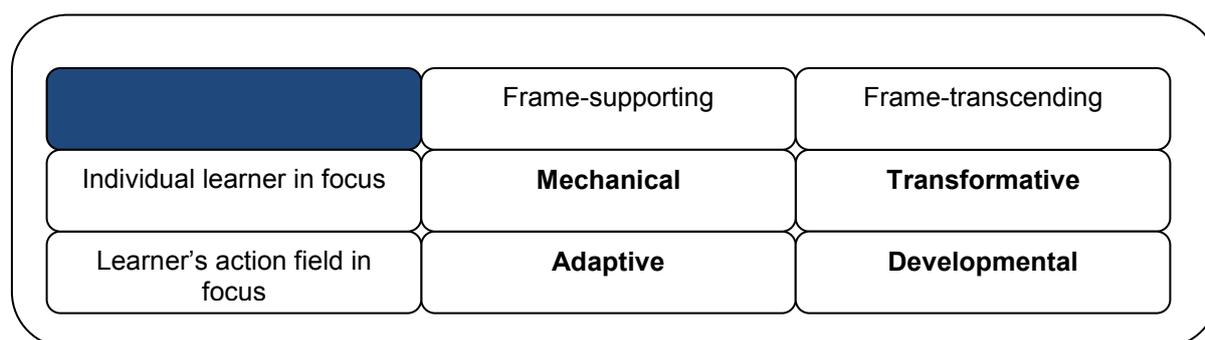
▪ The Auditorium is the learning arena where academic values are the main focus. A teacher's oral monologue (lecture) and teacher-student dialogues (discussion, joint reflection) play dominant roles. Auditorium is the academic institution's learning arena par excellence. In the Auditorium the teacher acts as a theoretical expert, challenging and expanding the student's knowledge in certain areas. In the said program however, we insist that Auditorium should not be considered a monolithic law-giver for what is deemed right and wrong in the two remaining learning arenas. Theoretical communication, dialogue and discussion take place in a multiparadigmatic field of tension in which questions and answers are continually subjected to further discussion.

▪ The Laboratory is the learning arena where the individual student viewed as embodied learner is the main focus. Structured training activities allow students to find out whether professional subject matters they've understood "with their heads" can be enacted by their bodies in real-life interaction with others. Personal experiences generated in Laboratory settings may be fed back and serve as arguments in Auditorium based theoretical exchanges: "This idea doesn't match what happened to me when … "

▪ The third learning arena is what we call Practicum. Physically it is located at the student's work place. Using a methodical platform based on Action Learning (Revans 1980) and Action Research (Coghlan & Brannick 2010), masters students initiate innovative projects in real time

using their own work environment as the setting for experimentation and learning. Below, our ways of utilizing this learning arena didactically will be discussed in much greater detail.

Learning arenas are situational contexts for learning. The following section deals with various types of learning that may come about as a result of practical engagement in a learning arena.

4. Learning categories: Striving for a balance between frame-supporting and frame-transcending learning

Learning as a generic term covers a wide array of processes involving change and development. As common denominator, the term indicates that new patterns of interaction evolve between a learner and her surroundings. Following Illeris (2009), we distinguish between four different categories of learning: mechanical; adaptive; developmental; and transformative. Figure 3 illustrates our way of distinguishing between these categories.

	Frame-supporting	Frame-transcending
Individual learner in focus	**Mechanical**	**Transformative**
Learner's action field in focus	**Adaptive**	**Developmental**

Figure 3: Learning categories and learning context

Two learning categories, mechanical and transformative, focus on the individual learner. Mechanical learning is further characterized as frame-supporting whereas transformative learning is frame-transcending:

▪ *Mechanical learning processes* lead to learning products of a simple, relatively fragmented nature. Specific stimulus conditions lead to specific responses. Learning involves the linking of a situational stimulus and a learning product, but without the product becoming an organic part of a broader action pattern. Mechanical learning processes take place without engaging the learner's personally rooted sense of meaning ("Implications for me … ?"), or rational understanding ("Why, on what basis ...?"). We call them frame-supporting because they may help a learner's newly acquired skills to take root. The importance we attach to body-based training (Laboratory) shows our respect for this type of learning.

▪ According to Illeris (2009: 142) transformative learning processes equal "what could be termed personality changes or changes in the organization of the self". Such change may come about as an effect of cumulative life experiences: "Older and wiser". Participation in lengthy, formalized training programs may also trigger them. The individual's thinking about self, others, and the world has been altered in fundamental ways. The changes have become integrated in her way of being.

▪ As educational planners and designers, we are bound to subscribe to an ambitious desire to make our contributions to such learning processes – thus living up to the classical maxim that, ideally, teaching should not just be "for school", but also "for life": "non scholae, sed vitae". At the same time, we do not consider learning processes of this kind an explicit target value for educational strategic planning. By including personal coaching as part of our teaching program we do, however, make it an option for students who feel so inclined to reflect upon the possible existential impact of their program participation.

According to figure 3, adaptive and developmental learning processes focus on the learner's action field (in the case of our students: their job situation). Adaptive learning is further characterized as frame supporting whereas developmental learning is frame-transcending:

▪ Adaptive learning is also known as assimilative or additive (Piaget 1971). It occurs constantly as part of our daily lives. This learning is dynamically driven by negative feedback from the environment: "something" does not behave in accordance with our expectations. New

experiences and insights expand our already existing knowledge, but the foundation structures legitimizing this knowledge are not seriously challenged. Immediate learning outcomes of the present moment become additions to what has already been learned. Adaptive learning explores action and cognitive alternatives within a given set of assumptions that often remain unarticulated. Argyris and Schön (1996) call adaptive learning single-loop learning.

▪ Developmental learning is also referred to as accommodative. It requires that the individual learner or community of practitioners somehow move beyond their existing, action-guiding mindsets. When situations or impulses baffle us, our efforts to come to terms with what is going on may lead to a restructuring of our current mindset. Mindset changes of this sort may have repercussions far beyond the situations that initially bring them about. We gain access to ways of thinking or acting that, simply by virtue of their novelty ("I/we never thought like this before"), may have a broader application value. Argyris and Schön call this learning category double-loop learning. Double-loop learning challenges the premises on which our actions are based. Guiding values and basic assumptions may become objects of critical scrutiny and, consequently, have to be revised.

Earlier in this article we noted that academic institutions may think that workplaces want only frame-supporting learning ("More of the same"). We find this viewpoint prejudiced and an indicator of cultural distances that make it difficult to start negotiations concerning the proper balance between adaptive and developmental learning efforts. The two next sections throw some light on the ways in which we strive to reach such a balance.

5. Practice-inspired transfer

The concept of learning transfer became a research issue in the early twentieth century. As such it is a classic within experimental psychology. Owing to its very age, the terminology and concepts of this research field may have a somewhat *altmodisch* feel about them. The concept carries connotations of the maligned so-called "banking" concept of education: the student starts with an empty account to be filled by the teacher. Once teaching is completed, the student will bring her newly acquired intellectual capital (i.e, transfer it) out of the classroom and back into her real life.

In this article, we have, on the one hand, chosen to retain the term transfer. At the same time we have (in the headline for this section) implied that such transfer must be *practice-inspired.* Below, we shall explain what we mean by this stipulation. However, we shall start by presenting an overview of the transfer-related research landscape.

From the outset, two approaches have dominated the discussion of learning transfer. Even today, both tend to underpin our understanding of the transfer concept. One approach was introduced by Thorndike and Woodworth. In their article of 1901, they launched their theory of *identical elements.* According to Thorndike and Woodworth, transfer will take place in so far as the learning context and the application context hold many identical cues or stimuli thereby calling for the same kind of response. This notion has led to the idea that the classroom must show maximum resemblance to the workplace in order for learning transfer to occur. In the context of our previous review of learning categories, Thorndike and Woodworth's concept of transfer must clearly be classified as adaptive, not to say mechanical.

C.H. Judd (1908) is often mentioned as a pioneering representative of the second approach. According to Judd, transfer is not simply a matter of moving identifiable skills from one context to another. Rather he sees teaching as a means to help students obtain abstract, generalized insights which they can subsequently make use of in new situations. Judd saw reflexivity and pattern recognition as preconditions for learning transfer. What was being transferred was not simple techniques, but rather general principles or abstractions. It seems that Judd, as compared to Thorndike and Woodworth, operates with a vastly more sophisticated learning concept. Whether or not this can be classified as developmental, is an issue we shall take up later.

Meanwhile, during the latter half of the twentieth century, transfer research with a more organizational bias was developed. Researchers aimed to identify the factors that respectively inhibit or promote transfer of training between classroom and workplace (Baldwin & Ford 1988; Noe 1986; Broad & Newstrom 1992). Three such factors have been recognized (Burke & Hutchins 2007) but in this article we only focus on one of these, namely the educational design. Prior to our discussion below on

educational design, we would like to introduce yet another concept that emanates from the same research tradition, namely the concept of *transfer distance* (Salomon & Perkins 1989).

Transfer distance is meant to indicate the mental or cognitive distance any learning "product" must travel in order to move from learning context to application context. For simplicity's sake, the concept is frequently treated as a dichotomous variable: *near-transfer* as opposed to *far-transfer*. Below we discuss the ways in which near transfer and far transfer respectively have inspired us as educational designers.

Near-transfer is closely linked to the Thorndike and Woodworth concept referred to above since it typically refers to transfer between similar contexts. Such a similarity makes it more likely that teaching content matches specific workplace-related learning needs. (Wahlgren 2009). With this in mind, it seems appropriate to look at the way work tended to be organized in 1901 when the initial transfer article by Thorndike and Woodworth was published. At this early stage of industrialism the skills required from the vast majority of the labor force were manual. To be seen as relevant, training was best implemented in a factory-like setting rather than in a classroom.

In contrast to this, the students with whom we co-operate nowadays in our masters program are primarily highly skilled knowledge workers employed in service enterprises. Their workplaces share many features with the academic environment where teaching and training take place. This fact adds new potential significance to the near-transfer concept in a practice-inspired version. As educational designers, we do our best to turn this similarity to pedagogical advantage. Theoretically as well as practically, we consciously exploit existing similarities between "our own" educational organization and an "ordinary" production-oriented workplace (of the service variety).

- We understand and describe ourselves, not only as teachers, but also as managers responsible for optimizing the ongoing production of learning.

- In the same vein, we invite the students to think of themselves as the educational organization's productive employees. We ask them for evaluative feedback on our way of managing and organizing the educational production line. We do not simply address them as individual learners but organize them in action learning teams that are meant to be jointly responsible for the fruitful learning activities of their members.

- When teaching organizational theory, we not only refer to workplaces "out there". We also make use of "our own" educational organization as a case in point. Organizational self-scrutiny and discussion help students as well as staff to gain insight into the functioning of complex organizational life. We intend such insights to be of inspirational value for the students, when they return to their work environment.

Far-transfer describes situations where the classroom's learning products need a more fundamental transition (the learning must "travel" a longer distance) before the learner can make practical use of them in his work setting. The concept is akin to Judd's ideas about transfer. Personal insight resulting from classroom-generated theoretical reasoning and discussion will become "differences that make a difference" in the learner's everyday job activities. Hence, promotion of far-transfer requires that concepts and methodological principles should be made subjects of "deep" discussion and analysis within the classroom setting (Auditorium). Similarly, teaching staff must, already in the teaching context, persistently make an effort to build conceptual bridges between classroom activities and work activities (Wahlgren 2009).

Judd's understanding of transfer, as reflected in the far-transfer concept, is intellectually more sophisticated. In a historical perspective this understanding can be seen as an early version of the human resources thinking (self-governing groups, etc.) that dominated industrial psychology during the late 20th century. On the one hand, this transfer variety is worth promoting along the lines described above. On the other, we should not fall prey to the kind of prejudiced academic thinking referred to earlier in this article. Even in its modern forms, the Judd tradition is primarily concerned with transfer *from* educational setting *to* workplace. Our scenario-model (Figure 2), however, says that "learning has no natural or preordained path. Training and learning are joined in a continuous, circular process". Practitioner competence is not developed through a movement unilaterally based on educationally achieved theoretical clarity. Competent practice is an epistemic domain in its own right: simultaneously knowledge-based and knowledge-generating. Practice may be an expression of, as well as conducive to, theoretical reflection. Proponents of philosophical pragmatism (learning by

doing) have developed and defended this view since the time when experimental transfer research first started (Dewey 1933). More recently the view has been further developed by Donald A. Schön (1983, 1987) – who will become our main source of inspiration in the following section of this article.

6. Theoretically inspired practicum; action learning and action research in the workplace

In the above section, we have described how we intentionally view our own *educational* organization as a *productive* workplace where staff and students join forces to become wiser about the workings of organizations. We shall now complement this perspective by looking at the learning potential inherent in making a workplace borrow traits from an educational set-up. Our discussion will be based on the concept of *practicum* as first coined by Schön (1987).

Schön's work reflects a critical stance towards mainstream educational thinking and practice. Schön uses the two terms *technical rationality* and *application theory* for describing how knowledge is viewed in traditional thinking: teaching aims to help trainees acquire theoretically validated, general knowledge and action principles. Such knowledge and methodology are subsequently assumed to help them become more effective practitioners.

According to Schön, such concepts do not match what actually takes place in competent professional practice. Practice is *neither* structured through clear concepts, *nor* composed of repetitive methodological sequences. Neat textbook guidelines are worlds apart from the jumbled process that is the hallmark of the competent practitioner at work. Problems-of-practice are ill-defined and unique; otherwise they would not be problems! Efforts to standardize problems are apt to complicate things even further. The competent practitioner will make do with whatever options or possibilities the situation offers him. He will let himself be guided by considerations which, when things are going well, will remain unspoken; but they may also be expressed verbally in cases where his implicit expectations are in some ways disappointed. Ideas or notions that help him, at a certain point, to find meaning or coherence may need to be replaced by others as he proceeds, depending on how the situation develops. Schön uses the term *reflection-in-action* for this flexible and spontaneous, yet rigorously disciplined, kind of self and process monitoring enacted by the competent practitioner. Reflection-in-action may be supplemented, after the event, by subsequent *reflection-on-action*, that is to say retrospective reflection aimed at bringing process-related insights to light.

There is an obvious congruence between Schön's approach and our critique of potential academic prejudiced thinking. Practice does not come about as a result of officially authorized knowledge being transferred into action. Practice evolves out of the competently monitored interaction between a practitioner and a given task. Rather than building, in a pre-determined way, on generally accepted knowledge, practice is knowledge generating. Practitioners who rely on reflecting-in-action may legitimately claim to be practice researchers (Schön 1983).

Schön uses *reflective practicum* as a descriptive term for the pedagogical framework that may help the development of competent practitioners. Practicum in Shön's terminology is a training arena: a kind of sheltered workshop that allows trainees to explore work-related tasks from various angles – by active experimentation and by talking about them with co-trainees or trainers. The tasks carried out are not artificial, but real. Yet, circumstances around task resolution must adequately reflect the fact that trainees *are in training*. Their actions are doubly motivated, at the same time aiming for effects (getting the task done) and for learning and discovery (becoming wiser). Another practicum feature offers trainees access to trainers whose jobs in this scenario are those of the coach rather than those of the teacher. The dialogue between coach and trainee supports the latter in her systematic observation and investigation of herself in professional role enactment. In this way, the trainee, helped by the coach, becomes acquainted with the various, characteristic steps that accompany reflection-*in*-action and reflection-*on*-action.

As masters program managers, we view the reflective practicum as a possible extension of the classroom but located in the student's workplace. We already touched upon this in our earlier list of learning arenas. More will be said in Part Two.

7. Summary of part one

We have now introduced the main inspirations concerning learning theory and educational strategy that lie behind our masters programs at Aalborg University. We believe that for vocational education to be effective, it must pay attention to the following points:

- Academic vocational training must cater for more than the adaptive educational needs of students. Students must be challenged to develop their practice. Identification of ambitious but also realistic learning targets requires collaboration between workplace, educational institution and students.

- Traditional classroom activities such as oral teacher presentations (Auditorium) must be supplemented by body-based training (Laboratory) and social experimentation in real life settings (Practicum).

- Facilitation of far transfer, i.e. the translation of abstract and general principles into practice, requires that students become actively engaged in "deep" theoretical discourse.

- The concept of near transfer has inspired us to structure and discuss the educational organization as a special kind of workspace thereby simulating the "real world" organizations of our students.

In Part Two, we develop these ideas further using our experiences from a recently established masters program at Aalborg University.

8. Master of organizational coaching

Since the beginning of 2008 Aalborg University has offered a Masters Program in Organizational Coaching (MOC). The target population is middle managers and, broadly speaking, organizational change agents. In our presentation below we first describe our efforts at bridge building between the educational institution and the students' workplace. Thereafter, we discuss our ways of using Action Research as a means towards realizing the practicum concept developed by Schön.

9. Bridge building between educational space and workspace

The first section discusses our efforts to engage students' workplaces in actively supporting the learning process of their employees. The second section describes how we support the students in translating and transferring educational experiences back into workplace practice.

9.1 Learner intentionality – getting the workplace involved in the learning process

Several researchers have shown interest in the relationship between trainees' learning objectives before an educational intervention, and the learning outcome which eventually results from this. According to Kemerer (1991) students, when left to themselves, tend to couch their learning objectives in fairly general terms. This, however, seems to inhibit learning. Kemerer recommends that students be helped to establish immediate, concrete end goals for the desired learning program before they begin their training.

Elliot & Dweck (1988) differentiates between two kinds of objectives reported by students:

- *Performance objectives*. The learner focuses mainly on ensuring a positive evaluation of his or her performance. In formalized educational contexts this evaluation will be communicated through a grading system. Performance objectives imply that an external authority has laid down criteria for good performance and, hence, may judge whether, or to what extent, the learner satisfies these criteria. Typically, performance objectives receive retrospective evaluation at the end of an educational course. Therefore they cannot help the learner experiment with process improvements along the way.

- *Learning objectives*. The learner engages in an ongoing process of self-observation with a view to developing experience-based quality standards in both personal and task related terms. The main focus is on improving performance in relation to new tasks. Compared to their performance objective counterparts, students guided by learning objectives become far more involved in self-evaluation of educational effects: "Have I acquired useful knowledge or skills?" Evaluation becomes an ongoing process allowing for continuous, personalized progress monitoring and self-correction.

MOC being a state accredited, university-based masters program, end-of-term exams are mandatory. Students naturally wish to do well at exams. Thus, performance objectives become part of the

educational setup. As a counterbalancing measure, we actively goad our students to formulate supplementary practical, work related learning objectives and we emphasize that the workplace should become involved in this work. As soon as the enrolment formalities are completed, we urge the prospective student to arrange an interview with her immediate supervisor in order to discuss future learning prospects and mutual expectations in relation to these. Considering that the workplace is paying for the course, how can the fees, etc., be turned into added value for the workplace? With inspiration from Brinkerhoof and Apking (2001), we see such a dialogue as potentially boosting learner intentionality. Ideally the dialogue should result in a learning contract between student and workplace. Important issues that may be covered by a learning contract are the following:

- Specification of personal and organizational learning objectives. Which concrete differences should become noticeable as a result of the student's educational activities?

- How may the student's work portfolio be tailored so as to provide optimal support for the accomplishment of the learning objectives?

- Which possible adjustments of the student's working hours may enable her to allocate adequate time and energy to educational matters.

Dialogues between student and relevant workplace representatives should be repeated at regular intervals so as to adjust and optimize expectations.

9.2 Individual coaching

Dialogues between student and relevant workplace representatives aim at creating an organizational interest and commitment in the student's learning process. Individual coaching is used as an educational tool intended to help students to translate (transfer) learning outcomes from the academic context to the organizational context of the workplace. Individual coaching is structured as a traditional coaching dialogue dealing with the student's professional role and personal challenges in relation to role enactment. Yet, the fact that it takes place between a student and a teacher adds special qualities to the traditional template. If the student chooses to talk about a concrete, current challenge at work (Practicum), the coach may invite the coachee to explore this challenge from an educational perspective using the insights and experiences from the Auditorium and/or Laboratory. Such coaching practice may help the student link the three learning arenas that make up the masters program.

Apart from this particular focus on learning transfer optimization, individual coaching in the MOC context serves a number of other educational purposes.

Given that (organizational) coaching represents the overriding theme of the masters program, individual teacher-student coaching sessions can be considered training components within the learning arena we refer to as Laboratory. The teacher/coach demonstrates his own particular approach to coaching. The student experiences the impact of this specific approach. For educational purposes, the coaching session should be followed by a joint meta-reflection between coach and coachee on methodological issues: "What happened during the conversation? - Why did the coach choose this intervention or ask that particular question? - What did the coach and the coachee respectively experience as helpful?" and so on.

Moreover, and in line with earlier remarks on the near transfer concept, MOC-coaching can be compared to coaching activities in normal production-oriented organizations. By talking about his role enactment within the MOC Organization the student may gain generalized insight into complex organizational life. Similarly, what the student experiences while being coached by one staff member, may teach him something useful about coaching arrangements between managers and employees in his own workplace.

Finally, several MOC students have told us that, apart from the professional learning issues discussed so far, coaching has also functioned as a vehicle for their personal growth and development. Coaching sessions may be used to explore personal leadership style and to reflect on career opportunities, work-life balance or family-related issues. Thus, the eight coaching sessions offered to the student during the two year long educational program may provide a valuable contribution to the students' existentially relevant transformational learning.

10. Action research as educational strategy

The learning arena we refer to as *theoretically inspired Practicum* plays a key role in our efforts to bring about a convergence of the educational context and the workplace. Action Research is our most important didactic tool within this learning arena. The Action Research tradition refers back to social psychologist Kurt Lewin who developed this way of combining organizational change and improvement work with knowledge producing research.

Action Research is oriented towards action and interaction. Learning, understanding and knowledge are achieved when groups of people (workers, managers and researchers) join forces to overcome practice blocking restrictions. Action Research transgresses the traditional boundaries between researcher and researched. Those who provide the data for the research are at the same time involved in the planning and execution of the research process. Unlike traditional research, Action Research always aims to go beyond the simple acquisition of new knowledge. Action Research aspires to transform and improve reality. Immediate success criteria are defined by the participants in the research process. Documentation of the research process and its results makes knowledge available for later, public, use.

On of the main challenges in Action Research is that no recipes or solutions can be provided in advance. The main task of the action-cum-research combination involved is, first, to identify organizational problems worthy of joint attention and then try to make positive changes through a series of minor experimental action sequences. The research calls for continuous planning adjustment in order to match the organizational development process resulting from the research process itself. Ends and means must be changed or adjusted as participants get feedback from their own actions, providing them with an improved platform for moving on in the research process. Action Research is shaped through a series of cyclic interventions, each intervention paving the way for the next.
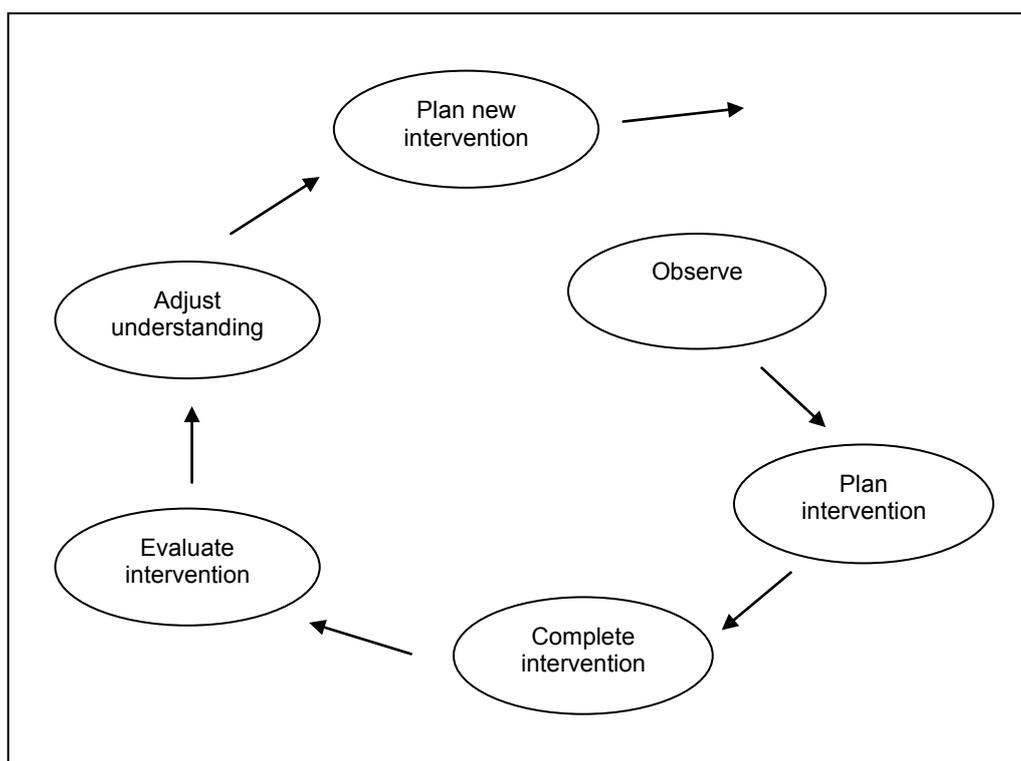
Figure 4: The action research cycle

The model illustrates how Schön's concepts of reflection-in-action and reflection-on-action can be combined in one single process. Interventions with partly unforeseeable outcomes are initiated and must be made objects of joint attention during enrolment (reflection-in-action). Observed results must be scrutinized (reflection-on-action: "What did we accomplish? – What was unexpected?") before they are translated into guidelines for new experimental interventions. This way of doing research calls for

researchers with an ability to act according to the situation, dealing flexibly, but still in a mentally disciplined, action-oriented way, with whatever comes up.

As mentioned, Action Research is guided by a normative perspective (success criteria) based on participants' goals and values. This normative approach makes Action Research attractive as a didactic strategy in educational programs striving to anchor students' learning in their work places. Action Research as a participative methodology requires the student to involve his workplace organization in his ongoing educational activities. Definition of goals and decisions about how to reach these goals is a joint operation. Doing Action Research in your own organization (Coghlan & Brannick 2010) involves not only the individual student, but also the student's colleagues, his manager and /or his employees.

Below, some important principles guiding the particular Action Research format practiced in MOC are presented.

10.1 Action research and research-based education

Given that MOC has been set up at a university indicates that our teaching is science and research based. MOC-students who are highly competent practitioners (middle managers and, broadly speaking, organizational change agents) may occasionally express doubts about the merits of scientific discourse and thinking styles. The neutral observational attitude traditionally associated with a scientific standpoint may somehow make them feel alienated from their own practice. Passion, rather than neutrality, is what links them to their work environment. Yet, at different times the very same students will recognize the potential of an analytic, observational stance for promoting new recognitions and learning: about local as well as organizational issues and process management issues in a more general sense.

Broadly speaking, it is our experience that a well-designed Action Research project implemented by the student in her home organization offers a unique opportunity to get the best of both worlds: involvement and commitment, to the point of entanglement, combined with observational distance and reflexivity allowing clarity and a broader vision to emerge. We encourage our students to form Action Research teams or duos. Ideally, this furnishes the Action Research project with a combined, mutually enriching insider perspective (commitment, something at stake) and outsider perspective (coolness, clarity, curiosity).

Applying scientific standards of rigor, transparency and quality in analyzing your own work environment and your role within it, is often experienced as a fierce challenge by our students. Yet, they also recognize that the unfamiliar perspective is what helps them achieve a more nuanced understanding of themselves as organizational change agents. The masters program holds up a mirror to the students in their capacities as individual actors and team players. Their student position lends them the opportunity to experiment and make controlled self-and-other observations in their day-to-day work setting, while at the same time working hard to succeed in their daily tasks. Their everyday working lives force them to adopt product oriented yardsticks in self-assessment. Action Research methodology helps them gain knowledge of the interactive processes lying behind and facilitating – or blocking as the case may be – organizational productivity. Insights are gained about the functioning and learning capacity of the organization. This knowledge is brought about and shared by groups of people in the workplace. It is our hope that the procedures of joint reflexivity, that are exercised in the workplace context while the program is running, can take root and be maintained (i.e. transferred) even after student graduation. We express this ambition in the following catchphrase: "Educating a student is educating an organization".

10.2 Action research and management in a complex field of possibilities

Much contemporary literature describes organizations as postmodern (Hosking & McNamee 2006). Organizations are in flux or constant change. Individual and organizational self-images are constantly being created and recreated through the involved actors' collective narrative activity. Social actors in the postmodern organization must be able to operate and navigate in a complex, discursive field of possibilities.

The increases we have witnessed in organizational complexity during the last 20 to 30 years have resulted in an increased demand for self-management skills among members of any organization.

Management and leadership in post-modern organizations require a high tolerance of uncertainty. Answers are never given in advance. It is our contention that Action Research is an efficient didactic tool that helps our students develop such competencies. Action Research is about "building the ship while sailing". Action Research implies a focus not only on outcomes but on the outcome-producing process as well: allowing the process to guide further action rather than letting yourself become prisoner of fixed long-term goals. We consider proficiency in situational leadership as a sine qua non in the complex organizational landscape of today.

10.3 Action research in a field of tension between educational space and work space

MOC students are invited to do Action Research in their own organizations. We refer to their workplaces as learning arenas. Does this mean that the educational institution becomes superfluous? Why pay dearly for a teaching program that simply returns the student to his own, well-known workplace asking him to make that setting his learning arena? Needless to say, we disagree with such an assessment of our educational strategy. The interplay and tension between the academic context and the workplace is what adds relevance and quality to the student's learning. Theory- and research-based inputs and discussions in Auditorium offer the student a valuable and unique opportunity for innovative reflection-on-action. The 'same old workplace' is seen in *not quite* the same old light. Ideas about reaching desired goals through better, i.e. more efficient and more socially useful, means are generated and, where relevant, tried out in the workplace setting. The results obtained are reflected upon in the Auditorium: "Were we sufficiently ambitious? Could we have made better use of the theoretical inspiration coming from the classroom?"

An example from the sporting world may serve as an illustration. While directly engaged in the match, a football player will view what is going on around him from a specific perspective. He notices his partners' and opponents' facial expressions: "Do they look tired, angry or aggressive?" He senses the grass: "Is it wet, hard as stone underneath, or swampy?" If the player is taken out and seated in the stand, he will see something different. Facial expressions are no longer noticeable. Instead he will start to pay attention to the particular configuration of the defensive line as it moves from side to side, wing backs coordinating their run along the sidelines, defensive players consistently failing in their efforts to provoke an offside, etc. "Are these movement patterns in line with what we planned when we were discussing our strategy before the match?" The position of the observer determines what is being observed – as well as what can be done to instigate action.

Metaphorically speaking, Action Research enables our MOC-students to play on the pitch and sit in the stand at the same time. This is a strong argument for maintaining an educational setup with separation lines between Auditorium (educational space per se) and Practicum (work space per se). This setup increases the complexity and invokes transfer problems, but it also stimulates learning in ways that transcend anything that either context could bring about on its own.

11. Summary

An educational strategy based on the theoretical ideas presented in Part One consists of the following elements:

1. Active bridge building between educational context and students' workplace:

- Enhanced cooperation and boosting of learner intentionality through recurrent dialogue between the student and her manager as well as other relevant representatives of her workplace.

- Ongoing individual coaching through which the student is helped to translate academic learning outcomes into concrete practice in the workplace.

2. Action Research as educational strategy:

- The student makes his own organization subject to combined research and intervention processes. The participatory research methodology involves workplace members in defining goals, intervention strategies and success criteria for the Action Research process. Hence, a community of learning is created.

- Action Research helps the students acquire general managerial skills such as awareness of their own learning processes, as well as skills in situational leadership.

12. Conclusion

In this article we have presented a vision for educational programs aimed at bridge-building between the academic world of theory and research and the professional world of practice.

Stakeholder co-operation that involves the workplace and the student alongside the academic institution is seen as the future hallmark of successful vocational training. In our view, no single educational stakeholder can be solely responsible for guaranteeing that a developmental learning process will have long-term effects in the workplace. Continuous learning in the workplace must be a joint venture; it requires the shared commitment of all major stakeholders. Stakeholder cooperation involves curiosity about the other parties and mutual recognition of the diverse motivations that make them all engage in the learning process.

The ideas presented in this article have been actively guiding us for a period of about three years. Informal evaluation is going on all the time. So far, the results seem promising. The article sets up criteria on which formalized program evaluations may be based. Future empirical research should strive to evaluate the effects of converging academic courses and workplaces. The potential of educational programs for making an impact on organizational development may thereby be substantially enhanced.

References

Argyris, C. and Schön, D. (1996) *Organizational learning II – Theory, Methods, Practice*, Addison-Wesley, Reading, Massachusetts.

Baldwin, T.T. and Ford, J.K. (1988) "Transfer of training: A review and directions for future research", *Personnel Psychology*, Vol. 41, pp. 63–105

Brinkerhoff, R.O. & Apking, A.M. (2001) *High impact learning – Strategies for leveraging business results from trainin*g, Basic Books, New York.

Broad, M.L. and Newstrom, J.W. (1992). *Transfer of training: Action packed strategies to ensure high payoff from training investments,* Addison-Wesley; Reading, Massachusetts.

Burke, L.A. and Hutchins, H.M. (2007) "Training transfer: An integrative literature review", *Human Resource Development Review*, Vol. 6, No. 3 September, pp. 263-296

Coghlan, D. and Brannick, T. (2010) *Doing Action Research in your own organization*, Sage Publications, Thousand Oaks.

Dewey, J. (1933). *How We Think. A restatement of the relation of reflective thinking to the educative process.* D. C. Heath and Company.

Elliott, E.S & Dweck, C.S. (1988) "Goals: An Approach to Motivation and Achievement", *Journal of personality and Social Psychology*, Vol. 54, No. 1, pp. 5-12.

Hosking, D.M. & McNamee, S. (2006) (eds.) *Advances in Organizational Studies – The Social Construction of Organization*. Copenhagen Business School Press, copenhagen.

Illeris, K. (2009) "Transfer of learning in the learning society: How can the barriers between different learning spaces be surmounted, and how can the gap between learning inside and outside schools be bridged?" *International Journal of Lifelong Education, Vol. 28, No. 2*, pp. 137–148.

Judd, C.H. (1908) "The relation of special training and general intelligence", *Educational Review*, Vol. 36, pp. 28-42.

Kemerer, R (1991) "Understanding the application of learning". in: Sork, T. (eds.) *Mistakes made and lessons learned: Overcoming obstacles to successful program planning*. Jossey-Bass Publishers, San Francisco.

Noe, R.A. (1986) "Trainee attributes and attitudes: Neglected influences on training effectiveness", *Academy of Management Review*, Vol. 11, pp. 736–749.

Piaget, J. (1971) *The Construction of Reality in the Child*. New York: Ballantine

Salomon, G. and Perkins, D.N. (1989) "Rocky Roads to Transfer: Rethinking Mechanisms of a Neglected Phenomenon", *Educational Psychologist*, Vol. 24, No. 2, pp. 113-142.

Revans, R. (1980) *Action learning: New techniques for management*, Blond & Briggs, London

Schön, D. (1983) *The Reflective Practitioner: How Professionals Think in Action*, Basic Books, New York.

Schön, D. (1987) *Educating the Reflective Practitioner*, Jossey-Bass, San Fancisco.

Thorndike, E.L. and Woodworth, R.S. (1901) "The influence of improvement in on mental function upon the efficiency of other functions", *Psychological Review*, Vol. 8, pp. 247-261

Wahlgren, B. (2009) "Motivation og læringsform. En oversigt over eksisterende forskning" [online] Nationalt Center for Kompetenceudvikling, www.dpu.dk/everest/Publications/Subsites/NCfK/Resultater/20090226142648/CurrentVersion/Litteraturstudie,%20unders%C3%B8gelse%201.2%20februar%202009.pdf