COLLECTIVE AND INDIVIDUALIZED LEARNING IN NORWEGIAN SCHOOLS: FUSION OR CONFUSION ?

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ABSTRACT

A new and ongoing governmental school reform in Norway has two major goals, one with an individual and one with an organizational focus: Norwegian schools are supposed to offer differentiated individualized learning for all pupils, as well as to become learning organizations. The reform named Competence Promotion also has two different implementation strategies; a more traditional curriculum strategy, as well as a competence development strategy. Schools have been asked to identify the competence they need to implement the reform, and higher education institutions have developed and conducted educational programs for school managers and teachers in order to meet these needs.

We analyzed two cases of educational programs conducted as part of the competence strategy in order to see to which degree school managers and teachers tend to focus on individual or collective learning. We found a polarization: School teachers seemed to focus on individual level issues and subjects, while school managers participated in programs focusing on collective learning and developing learning schools.

In order to understand the reason for this polarization as well as the possible consequences for the accomplishment of the reform's goals, we apply three different theoretical perspectives: In order to shed light on the macro to micro processes that schools are experiencing as part of the reform, we apply institutional theory. In order to understand collective - or lack of collective - learning, we apply organizational learning theory. When it comes to understanding the challenges teachers face when expected to offer pupils adapted and differentiated learning, we choose to apply theories of learning strategies. The Norwegian Ministry of Education and Research has stated that developing learning schools is both a goal by itself and a prerequisite in order to develop differentiated, adapted learning. Thus we finally discuss how the polarization in focus between school managers and teachers may affect the direction of the reform and the likelihood of reaching its goals.

Key words: School reform, institutional theory, learning strategies, organizational learning

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1   INTRODUCTION: A SCHOOL REFORM CALLED COMPETENCE PROMOTION

The implementation of a new governmental school reform started in Norway in August 2006, and will continue throughout 2008. It covers the 10-year compulsory school as well as upper secondary education and training. Named "Kunnskapsløftet" in Norwegian and "Knowledge Promotion" in English[‡], it originally built on the idea of a fruitful fusion of two foci of learning; individual and collective learning. Norwegian schools were supposed to become learning organizations, and to develop the capacity to learn collectively, work in teams and spread knowledge in collaborative contexts. At the same time, schools were expected to offer all pupils differentiated, individualized learning, not only pupils with special needs. In other words, the reform had a dual focus, a focus on collective as well as individual learning.

The reform's espoused theory-of-action (Argyris and Schön 1978) seems to be that the creation of a collective learning environment (that is, a learning organization), will promote optimal, and differentiated learning for pupils as well as for staff (Norwegian Ministry of Education and Research 2005). To become learning organizations is said to be a goal by itself, as well as a precondition in order to individualize pupils' learning. To help school managers and teachers become capable of changing their schools into learning organizations, they are offered competence programs conducted by universities and university colleges. The Norwegian government has put substantial amounts of money into these programs. As such, the reform has two implementation strategies, a competence strategy, as well as a more traditional curriculum strategy.

Research questions and theoretical focus
We choose to see the reform as a battle of attention. We assume that time and attention is a scarce resource also in schools. According to Statistics Norway, 38 % of school teachers report that they do not have sufficient time to carry out their work properly (Statistics Norway 2006). So we anticipate that indications of where the local actors (primarily school managers and school teachers) choose to have their focus may be an indication of which direction the reform seems to take. We thus ask two questions:

1. Which direction does the attention of school teachers and managers tend to take in the midst of the reform?
2. How can we understand their focus and the possible consequences for the accomplishment of the reform's goals?

In the first question we are primarily interested in to what extent teachers and school managers tend to spend their time on individual or collective activities and programs. In order to answer the first question, we analyze the content of an educational program for school personnel conducted by a university college as part of the reform's competence strategy. More exactly, we map which subjects the participants chose to focus on in an innovation project that was part of the program.   We also map which subjects were most frequently asked for when schools directed their competence needs to a university college in order to have the college put up educational programs for their teachers and school managers.

[‡] It was originally named "Competence for Development" in English by the Ministry of Education and Research, later renamed "Knowledge Promotion".

In order to answer the second question, we choose to apply three different theoretical perspectives. We do so both as an answer to the conference's call for fusion, and because we believe that theories possess dissimilar explorative power: We will use neo-institutional theory in order to shed light upon the macro to micro processes that schools are experiencing as part of the reform. In order to understand the collective learning in local schools, or the possible lack of collective learning, we attempt to apply organizational learning theory. When it comes to understanding the challenges teachers face when expected to offer their pupils adapted and differentiated learning, we choose to apply theories of learning strategies. Finally, we will attempt to blend these multi-level theories in a discussion of our findings.

We hope that the fusion of these different theoretical perspectives can help us avoid the methodological myopia that may occur when complex phenomena are analyzed by applying a single approach. A school reform is indeed complex, in the sense that macro, meso and micro processes all come into play. While didactic challenges call for a perspective that for example includes developing meta-cognitive skills among pupils, an understanding of the relationship between collective and individual learning will call for theories that may shed light on the possible existence of learning barriers and defense routines within organizations. Why organizations choose to import and edit certain concepts and ideas instead of others requires macro to micro theories that present us with tools to understand the importance of legitimacy and isomorphism, that is, an institutional perspective.

2 TWO IMPLEMENTATION STRATEGIES

Competence Promotion is the third major school reform in about ten years. In 1994 and for some years to follow, the "R-94" reform swept the secondary school system (pupils of 17-19 years of age). Three years later the Norwegian government initiated a new reform related to the former, "R-97", now aiming at the primary school level (6-16 years of age). The reforms required changes in both structure and content and were met by substantial resistance, especially from school teachers. The critics pointed, among other, to the top down implementation strategy that was applied and to the need for competence development for school teachers and managers. When Competence Promotion was announced, schools hoped for a reform that was followed by money for competence development and larger freedom of choice for the local schools. Their wishes were to a large degree heard, and when the Ministry of Education and Research announced the new reform it was supported by the Norwegian Association of Local and Regional Authorities, the Union of Education Norway, the Norwegian Association of Graduate Teachers, the Norwegian Union of School Employees, as well as the Norwegian Association of School Leaders. The reform was based on two implementation strategies: A competence strategy as well as a more traditional curriculum strategy.

2.1 The curriculum strategy

The reform calls for several changes in subjects and teaching methods. One of the major changes is a new principle stating that all pupils from now on have the right to adapted and differentiated learning. Adapted learning has first and foremost been related to pupils with special needs, now it has become a general principle in Norwegian schools. The teacher

now has to take into consideration the individual student's level and learning needs when planning and teaching. This new commitment will challenge the roles of both pupils and teachers and it will require new competences. It implies that the teacher now to a larger degree has to be a facilitator for the student in her/his learning process.

The teacher's role will as a result of the reform change from being a traditional teacher who is transferring knowledge to a teacher who is more of a counselor and a facilitator in the pupil's learning process. Since the pupils now to a larger degree have the option to choose their own curriculum as well as the methods that will best suite their learning process, the teacher has to map and diagnose the individual pupil's needs and potential. This will challenge the teacher's didactic skills, in the sense that the teacher has to help the pupils to design their own learning paths, and then facilitate them on their way towards their individual learning goals. The teacher also has to assist the pupils choosing the best learning strategy for the specific learning tasks at hand. Structured and planned assessment and constructive dialogue between teacher and pupil now become crucial.

The pupil's role will also change: Through productive dialogue facilitated by the teacher the pupil is expected to become more aware of his or her point of departure as a learner. The goal is that the pupil shall develop learning strategies and metacognitive skills. Metacognitive skills call for a certain level of awareness of one's own learning strategies and a certain capability of self regulation. It puts a larger degree of responsibility for the learning process on the pupil, but it also challenges the role of the teacher. These skills and this awareness have to be developed by the pupil, and the teacher is expected to take the role as a facilitator in the pupil's learning process. It follows that the reform's quest for differentiated and adapted education will require that both the pupils and the teachers have to learn in new ways: The pupil has to learn how to use learning strategies that suit the task at hand; the teacher has to learn to become the facilitator that helps the pupil develop the new skills.

2.2 The competence strategy

Competence Promotion is promised to be a competence boost, and the Norwegian government has put aside substantial resources that school owners, e.g. the local school government, may use for competence development. The competence strategy seems to have several goals: Among other to clarify the role and accountability of school owners (counties and municipals), to accommodate local competence needs, and to emphasize the importance of the organizational perspective (Ministry of Education and Research 2006b).

In contrast to the former reforms, Competence Promotion not only aims at improving learning among pupils, but also at developing learning schools. In order to give pupils a good education in a society which is more diverse and more demanding in terms of knowledge, a "culture for learning" is said to be the condition for the implementation of the new reform goals. Indeed, for Norwegian schools to become *learning organizations* is one of the central reform goals, and collaboration, flexibility, competence, learning environments, freedom of choice and individual and collective learning are among the phrases in the reform documents presented by the ministry.

The implementation of the reform is facilitated through competence programs offered to school managers and teachers. The subjects covered in these programs have varied from

traditional subjects such as math, language and didactic skills, to school management and how to develop learning schools. The subjects covered by these programs were to a large extent decided by the schools themselves. The Ministry of Education and Research asked local schools through their school managers to identify the kind of competence they needed in order to implement the reform. These needs were then directed to competence providers, for example university colleges and universities, that were asked to develop and conduct educational programs and courses in order to meet the needs from the schools, as indicated in Figure 1.
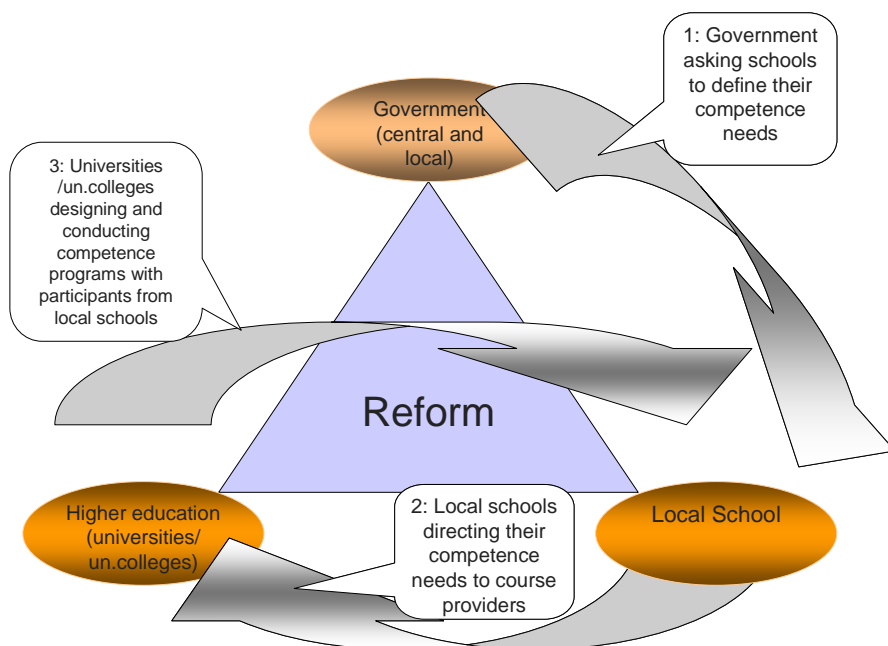

Figure 2: Institutional level actors and competence programs

2.3 The dual focus

We conclude that the new school reform builds on a traditional curriculum strategy that introduces changes in subjects and ways of teaching. In addition, the reform rests upon a theory of action that assumes that the implementation of the reform may be facilitated through educational programs for school managers and teachers. Also, we have identified different learning foci that are incorporated in the reform: Schools are expected to expand the pupils' ability to apply learning strategies, but also to become learning organizations and develop their capability of collective learning. We conclude that the reform has two foci at the same time – one on individual and another on collective learning.

The dual focus on individual and collective learning becomes apparent when we analyze the early reform documents. In Table 3 we have sorted frequently used concepts that we found in one of the main reform documents, The Norwegian Ministry of Education and Research's "Competence Development Strategy in Basic Education 2005 – 2008". As we see they fall into two groups, characterized by a collective versus an individual focus.

Table 3: Two competing loci of attention?

Collective focus		Individual focus
Culture for learning, collaboration, flexibility, adoption, competence, learning environments, collaborative contexts, collective learning, learning organizations, learning environment, Collaboration with other competence environments, spread of learning		Adapted learning, responsive to variations in pupils' backgrounds and needs, equal opportunities for learning through adapted and not identical learning procedures , varied and differentiated learning, more adequate adapted learning for the individual pupil

The classification of central concepts into two groups mirrors the two main goals of the reform: On the one hand the reform has a collective focus since Norwegian schools now are to become learning organizations characterized by larger degree of collaboration and knowledge sharing. On the other hand the reform has a strong individualistic focus, in the sense that each student now is to be offered individualized adapted learning.

3   INSIDE THE TRANSITION STATE: THE REFORM AFTER ONE YEAR OF IMPLEMENTATION

According to the Norwegian Ministry of Education and Research (2006), the reform will be implemented in the following progression:

> The 2006–2007 school year:
> Grades 1–9 of the 10-year compulsory school and grade 11 in upper secondary education and training will adopt new subject syllabuses and a new distribution of teaching hours per subject. Foreign language/language specialization is to be introduced gradually, starting in the eighth grade. Schools may offer new programme subjects as electives at the lower secondary level.
>
> The 2007–2008 school year:
> New subject syllabuses will apply for the 10th grade and the second stage of upper secondary education and training (grade 12).
>
> The 2008–2009 school year:
> The Knowledge Promotion will be introduced at the third stage of upper secondary education and training (grade 13). All schools must offer programme subjects as electives at the lower secondary level.
> (Norwegian Ministry of Education and Research 2006: 4)

By spring of 2007, the first school year after the implementation of the reform started is coming to an end. We are in the middle of the implementation phase, in what Beckhard and Harris (1977) coined "the transition state". It is a state where the familiar structures, processes and habits are changing, and the new form has not yet been established. We have left the stable state but have not yet reached the new, preferred future. Although this depiction of change as a linear, sequential process may have its weaknesses, it may also serve as a simplistic pedagogical illustration of the movement into a realm where many organizational actors often report confusion and frustration. A change of focus is called

for, a change from where we used to have our attention and to new goals and priorities. In the following we will illustrate how school teachers' and school managers seem to focus in the midst of the transition state. We will do so by analyzing two cases: One is an analysis of the subjects schools asked for in educational programs conducted by a university college as part of the reform. The other is an analysis of the challenges participants in an educational program chose to focus on in their innovation project assignments.

These programs where offered by two different university colleges. All programs were part of the competence strategy financed by the Norwegian government, aimed at implementing the reform by the means of a competence boost as well as a more traditional curriculum strategy. We suggest that analyzing the focus of the programs may reveal interesting data on the course and possible effect of the reform.

3.1 What themes did the schools request for their educational programs?

Even though the implementation of the reform did not start until the fall of 2006, educational programs started in advance as a part of a strategy to make Norwegian teachers and school managers more capable of implementing the reform.

In a survey conducted in the spring of 2006 for the Union of Education Norway, Norway's largest trade union for teaching personnel, 60 % of all union representatives and 80 % of the headmasters reported that there had been a mapping of competence needs in their school (TNS Gallup 2005). 82% of the school managers were satisfied with the quality of the mapping, the percentage among the representatives was 65. Differentiated learning, math, language, school management and science were the most requested subjects. 82 % of the counties had as part of the reform developed a four year educational plan for teachers and school managers.

In order to fill the gap between their present competence level and the level that they reckoned was necessary because of the reform, the schools were supposed to ask competence providers develop and conduct educational programs. The most frequently asked providers of education programs were the university colleges: 67% of the school owners (counties and municipals) had by spring 2006 asked university colleges to develop programs as a result of their competence mapping. Others asked were school owners' supervisors, universities, school teachers and private consultants.

One of the university colleges received over a period of eight months from August 2006 to April 2007 nine formal requests from schools asking for specified educational programs. The college ended up conducting six programs. In addition, the college developed and offered four programs based on what they referred to as informal signals from schools. The programs in Table 2 shows the themes schools asked for and which ones the college ended up carrying out.

While the themes in Table 2 where communicated as formal requests from the schools to the college, Table 5 shows what programs the college developed and offered schools on the basis of what the college named informal signals.

Table 4: Programs requested and offered

Program themes requested from schools	Specifications	Offered by the college
English for teachers	15 ECTS (+ eventually 15 ECTS)	**Yes**
Mathematics	10 ECTS (+ eventually 10 ECTS)	**Yes**
Mathematics	One day program for teachers	**Yes**
Technology and design	6 days, modules, possibly extended to 15 ECTS	**Yes**
Everyday physical activities in schools	5 ECTS	**Yes**
Geology, botanic and zoology	5 ECTS	**Yes**
Differentiated learning	ECTS not specified	**Yes**
School management – learning organizations	30 ECTS	**No. Not conducted so far due to lack of available lecturers. (Two programs for school managers had already started)**
Career advising	ECTS not specified	**No. Might be conducted fall 2007.**

Table 5: Programs offered by the university college based on informal signals

Programs offered by the college without any formal requests from schools	Specifications	Accepted by schools and actually conducted
Teaching history	10 ECTS	**Yes**
Mathematics - Calculus	7,5 ECTS	**Yes**
Geography	15 ECTS	**Yes**
Science	15 ECTS	**Yes**

Out of thirteen programs shown in Table 2 and Table 3, ten are typical teaching subjects. One is dealing with didactic challenges related to the reform's declaration that differentiated learning now is a right for every pupil, and not only for the ones with special needs. One of the programs is devoted to school management and how to develop the

school into a learning organization. In addition to this program, the college had already started two major programs on developing learning schools where all together approximately 200 school managers participated.

3.2 Which innovations did the students in the OIM-program choose for their projects?

The Organization, Innovation and Management program ("OIM") was initiated, developed and offered by a second university college in order to qualify the students for leading innovation processes. Referring to the school reform, the curriculum is said to emphasize the development of a "culture for learning". Practical problems related to organizing and quality improvement in the participants' work situations are to be focused. Local improvement in schools, preschools and other institutions with "special dynamics" is the central topic. It is described as a practice based program where the college as a part of the program offers advice and instruction.

OIM is a 30 ECTS part time program. It is divided into five modules:

Module 1:   Innovation and management in a strategic perspective - development of a culture for learning.
Module 2:   Creative processes in innovation.
Module 3:   The innovation process. Management and instruction.
Module 4:   Making a plan for innovation.
Module 5:   Practical change – implementation.

The program is said to initiate local development and change and extend the students' insights and understanding of "how systems affect a learning organization", and to help to "illuminate challenges and possibilities that are a part of the development of a learning culture".

Each student develops an innovation project as a part of the program. We analyzed the students' project descriptions in an attempt to identify where they chose to focus their attention. We were particularly interested in what subjects they chose for their innovation plans, that is, which areas within their own practice or organization they wished to improve as a part of their study. Since the students were expected to analyze their innovation processes, we also mapped which level of analysis they preferred, that is, if their attention were primarily directed to the individual level, the group level, the organizational level, or the level of society / the external environment. By individual level we meant students that were for the most part discussing their innovation in relation to for example individual pupils in the classroom, or colleagues or parents. As group level we labeled innovations where a more collective perspective was applied, for example the dynamics of a school class, or the teachers as a team or a group of colleagues. The innovations we labeled as applying an organizational level analysis were the ones where for example organizational overall plans, human resource strategies, information flow, communication patterns, organization design, school management, or organizational culture where central elements of the analysis. Finally we looked for innovation plans that were concerned with external institutional forces, whether local, regional, national or global.

As **Error! Not a valid bookmark self-reference.** shows, we classified six out of thirteen innovations as having a predominantly individual focus. Five out of thirteen were labeled as a hybrid of individual and group level innovations. One was categorized as group level, and one as organizational / society level.

Table 6: Subject of innovation and level of analysis

Student #	Subject of the innovation	Level of analysis
1)	Special education	Ind.
2)	Portfolio, AL	Ind./Gr.
3)	AL	Ind.
4)	AL	Ind.
5)	Portfolio, AL/D&D	Ind./Gr.
6)	Special education, AL	Ind./Gr.
7)	Pupils	Ind./Gr.
8)	AL/D&D	Ind.
9)	Teamwork / Special education	Gr.
10)	AL/-D&D	Ind.
11)	AL	Ind.
12)	Innovation networks for women	Ind./Gr.
13)	Special education	Org./Soc.

(AL= Adapted Learning, D&D = Dunn and Dunn. Ind.= Individual Level. Gr.= Group Level. Org.= Organization Level.)

Eight out of thirteen were primarily dealing with adapted learning as the subject of their innovation, where adapted learning typically was equaled with implementing learning styles methods in general and Dunn and Dunn's learning style methods in particular (Dunn 1999; Dunn and Dunn 1999, Dunn 2003b). Dunn and Dunn were treated as the main innovation theme in three of the innovations, but were part of other innovations as well. Dunn and Dunn's method was in fact the only specific learning style method that was referred to in any of the projects.

The one that was labeled as a group level analysis was focusing on how a team of people from different professions could be established in order to support the special needs of a disabled pupil. The one that was labeled as an organizational/society level analysis was discussing how political and legal forces exercised pressure on the professions that worked for pupils with special needs, and went forward to analyzing with the help of organizational learning theory how the implementation of new forms of working had stopped in her organization.

3.3 A preliminary summery: Who's looking where?

As our two cases as well as the survey conducted by TMS Gallup indicates, the content of the competence programs and the main focus of the participants seem to be drawn towards the individual level and towards traditional teaching subjects and didactic and methodological issues related to differentiated learning as a general right for all pupils. These are programs where the participants are mainly school teachers.

Issues related to the organizational level, that is, to whole system issues and to developing learning cultures and learning schools, seem to a large extent to have become limited to the programs for school managers. To put it simple: The reform's competence strategy seems to strengthen the teachers' focus on the pupil, that is, a focus on the individual, while school managers to a larger degree develops a focus on the organization and the collective.

4 THREE THEORETICAL PERSPECTIVES

4.1 An institutional perspective

One of the important roots of institutional theory goes back to Phillip Selznick's work on leadership and institutionalization (Selznick 1957). Selznick described how an organization may change from being a rational, impersonal, goal oriented formal system, to becoming an institution – a historically, integrated and dynamic product infused by values and with a distinct character. Although institutional theory has changed significantly since the "old" institutional theory, neo-institutional theory is still occupied with the processes where rules, norms, schemas, and routines become established structures and authoritative guidelines for actors; how they are diffused, adopted, edited, and adapted; and how they loose their regulating power and gradually are abandoned.

When attempting to explain institutionalization, Aldrich (1992) draws a line from Selznick's works in the 1950's to among other Charles Perrow, Berger and Luckman, culture studies and a long tradition within sociology occupied with social systems (families, education, public sector etc) as institutions. He points to the many similarities between institutional theory and what he refers to as «plain sociology»: «Consider its message: reality is socially constructed, social life is governed by taken-for-granted rules and norms...(...)...These assumptions form the core of most introductory textbooks in sociology.» (Aldrich 1992 : 22).

Institutional theory conveys actors as constrained by social rules. The main perspective is macro-to-micro. Neo-institutional theory for example points to how external forces drive organizational actors to behave in certain ways (DiMaggio and Powell 1983). Institutional surroundings may execute substantial pressure on organizations, driving the organizations to incorporate new practices and procedures that have been institutionalized as best practices in the field of the society they are part of (Meyer and Rowan 1977). However, sometimes these "best practices" may turn out to be myths, and when organizations try to incorporate them, they may become a hinder for effectiveness and efficiency, making it troublesome for employees and managers alike to work with their customers and clients. On the other hand: If organizations choose not to import the external ideas and practices, they may not be considered "modern" in the institutional field they are part of, and may loose legitimacy. One solution to this dilemma is a "ceremonial conformity" and

decoupling, that is; the organization seemingly takes the form of other organizations, a process called isomorphism, but at the same time their local practices may differ substantially according to varying conditions (Meyer and Rowan 1977). Another solution is simply to play the hypocrite: As Brunsson found in his study of the public sector in Sweden, hypocrisy is a mechanism that organizations often apply when conflicting demands arise (Brunsson 1995).

The last decade we have seen a growing interest among institutional theorists in how organizational recipes and management ideas are diffused among and imported into organizations, and in how these scripts are edited by the actors when the scripts enter the organization (Sahlin-Andersson 1996, Røvik 1996). We have seen an increasing interest towards the activities of micro actors, and the processes of de-institutionalization that also take place in institutions (Oliver 1992; Borum and Westenholz 1995; Greenwood and Hinings 1996; Czarniawska and Sevon 1996; Barley and Tolbert's 1997).

4.2 An organizational learning perspective

Argyris and Schön (1978) are often referred to as the ones who came up with the concept organizational learning. Argyris (1977) sees organizational learning as a process that takes place through the actors, that is; individuals are acting as agents for the organization. That organizations do not learn directly, but through their members, is a view that is shared by among other Senge (1990), Honey and Mumford (1992), and Burgoyne et al. (1994). In order for learning to become organizational, knowledge must become part of the organization's memory whether as static memory, in the form of for example documents, or as active memory, in the form of shared mental maps (Kim 1993).

The central role of the actor thus makes organizational members' ability to learn and what hinders learning a central topic. Argyris and Schön put emphasis on the latter, claiming that individuals, groups and organizations may have two types of theories; espoused theories and theories-in-use. After years of practicing our theories-in-use we become unaware of how we grow into experts in avoiding learning. We are programmed to apply profoundly defensive strategies in order to avoid embarrassment, risk, and vulnerability. We strive to appear competent, and we do not want to loose face. We develop defensive routines as individuals, and these defensive routines escalate from the individual to the group and the organizational level, until they finally may become a characteristic by the organization as a whole (Argyris and Schön 1996). The consequence is a blend of unconscious individual and supra-individual practices that hinders learning. In addition, we tend to cover up our defensive routines and cover up the cover ups in such a way that the organization "… becomes less able to adapt to changing conditions" (Argyris, Putnam, and McLain Smith 1985 : 56). To develop more productive communication skills thus becomes a necessity in order to enhance organizational learning.

Influenced by pragmatic learning theory, Argyris (1977) sees organizational learning as a process of detection and correction of errors, where individuals are acting as agents for the organization and learning occur through the actors. A more information and knowledge based definition is proposed by Huber (1991), who claims that an entity learns if the range of its potential behaviors is changed through its processing of information. The latter includes knowledge acquisition, information distribution, information interpretation, and organizational memory. In line with Argyris and Schön (1996), he holds forth that learning

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does not need to be intentional or conscious, and learning does not necessarily add to the learner's effectiveness, and it does not have to lead to changes in apparent behavior.

Organizational learning is closely related to the concept "learning organization". Peter Senge defined a learning organization as an organization in which learning is so integrated into the fabric of life that it is impossible not to learn (Senge 1990). In a learning organization people continually enhance their capacity to create what they want to create. Becoming a learning organization is to Senge essential, since the rate at which organizations learn may decide the likelihood of surviving in a volatile world. He is supported by De Geus, who holds forth that the ability of the actors in an organization to learn faster than people in competing companies constitutes the only sustainable competitive advantage (De Geus 1998).

However, Tosey characterizes the hunting of the learning organization as a "paradoxical journey" (Tosey 2005). He questions the paradigmatic assumption that says that learning is a universal good. Instead, he points to the paradoxical nature of organizational life, and proposes an aesthetic perspective in order to gain insight into epistemological issues of learning organizations. And Örtenblad (2002) describes the variety in definitions and points to the fact that there are few overviews of the idea of 'learning organization' in scholarly works. The concept of learning organization is in other words vague (see for example Fenwick 2001 for a discussion).

Maybe then it is not surprising that Weick questions the entire idea that organizations are supposed to be able to learn. On the other hand have recent Scandinavian studies of schools shown that collective learning processes are important also for the individual learning that takes place in the classroom (Bungum et al., 2002; Dahl et al., 2003; Dahl, 2004). These findings indicate that the role of the collective and the organization should not be forgotten when it comes to developing good schools.

4.3   A learning strategy perspective

When theorists and researchers from various disciplines talk about learning strategies they seldom refer to the same concept. In solving the definition problem O'Neil (1978) adopted an eclectic position and defined learning strategies as "intellectual and affective skills" that constitute "a necessary condition for more efficient learning". Derry proposes a more operational definition by stating that "A learning strategy is viewed as a complex plan that one formulates for attaining a learning goal" (Derry 1990:348). Such a plan consists of any cognitive processes, behavioral activities, and emotions that learners employ to facilitate their accomplishment of learning tasks. Strategic learners have metacognitive knowledge about their own thinking and learning approaches, a good understanding of what a task entails, and the ability to use the strategies that best meet the task demands.

Learning strategies are usually described as a part of self-regulated learning (Zimmerman 1990). Self-regulated learners are able to regulate their learning process by using control strategies (Pintrich 2003). They are capable of controlling their own learning, as well as to reflect upon the ways they learn. Pupils who are self-regulated are planning what they are going to do, deciding how much time they will use and they are also able to decide what kind of strategy that is most suitable for the task, and they are also able to evaluate their

learning outcome. Being able to use control strategies reflects the pupils' ability to choose a different strategy, if this is needed to solve the task.

Learning strategies involves activities such as planning ahead, monitoring one's performance, identifying sources of difficulty, checking, estimating, revision and self-testing. Learning strategies have been called "the secret algorithms of learning" (Duffy 1982).

The research on learning strategies has revealed a large amount of information about the types of strategies pupils use to learn. More than one hundred strategies have been identified by different learning strategies researchers, according to Chamot et al. (1999). Weinstein and Mayer (1986) present a typology for learning strategies consisting of eight categories. They make their criteria for categorizing by differentiating the intended function of the strategies. Nisbet and Shucksmith presents a typology based on six categories and they also present a hierarchy of three levels of strategies: micro-, macro- and central strategies (Nisbet and Shucksmith 1986). Some of these categories and levels refer to the PISA tests' construct of memorization, some refer to elaboration and some to control strategies (Turmo 2005)

Regardless of that learning strategies have been defined and categorized in diverse ways, the researchers tend to stress that the final goal of learning strategies is to help the learners to successfully accomplish their learning tasks. Pupils rarely learn to apply learning strategies beyond specific applications when they are facing poorly defined tasks. For effective learning to occur, it is important that skills and strategies are learned in such a way that they can be "transferred" to fit new problems or situations not earlier met. Being able to choose the appropriate strategy and to adapt it when it is required becomes a necessary condition for efficient learning. The development of these skills has according to OECD seldom been a focus of teaching in schools, but these skills are now increasingly being identified as major goals of schooling and should, therefore, also be regarded as significant outcomes of the learning process (OECD 2001).

The literature on learning strategies provides different suggestions to how strategies should be taught (McKeachie et al. 1985). Hopfenbeck argues that there is a relation between the ways pupils choose to use learning strategies and the way teachers use assessment criteria in the classroom. She claims that it is important that the teacher clearly communicates the assessment criteria to the pupils (Hopfenbeck 2006). Nisbet and Shucksmith (1986) argue that it is important that pupils do not concentrate on the finished product. Instead they should be encouraged to reflect on the learning process. This involves discussing and analyzing with the teacher what the goals of the exercise are, and how these goals are related to prior work. Dialogue becomes important: The teacher should discuss with the pupils what the best means of achieving the goals are and what kind of skills and information are necessary. It is important to encourage pupils to take more active part in assessing their own learning, instead of waiting for instruction from the teacher. Nisbet and Shucksmith (1986) argue that learning to use efficient learning strategies best can be carried out by direct training in a range of levels of skills and strategies, supported by an effort on the part of the teacher to encourage an amount of self-awareness and self monitoring.

4.4 Bringing the perspectives together

We hold forth that the three theoretical schools we have depicted possess different explanatory power. When it comes to level of analysis, institutional theory represents a predominantly macro-to-micro approach. This does not imply that institutional theory does not deal with micro actors. It certainly does, and maybe more now than a decade ago. But we have tried to illustrate how institutional theory has a tendency to understand actors in the light of the effect macro structures exercise upon them. Organizational learning theories represent to a larger extent a micro-to-macro approach, in particular when it comes to explaining the progression and production of organizational defensive routines. Learning strategies has a micro-to-micro approach, that is, the focus is primarily on the one-to-one relationship between teacher and pupil.

The three perspectives also differ when it comes to units of analysis. Institutional theory typically prefers to analyze how forces in the external institutional field put pressure upon organizations, how institutionalization and de-institutionalization processes works, and how isomorphism, decoupling and hypocrisy come into play. Organizational learning theories are occupied with the learning processes that take place among actors, typically (but not restricted to) actors within an organizations, how these actors develop strategies that inhibit learning, and how development of productive communication may promote collective learning and facilitate effective problem solving. Learning strategy theories are dealing with the relationship between teaching and learning, the cognitive and metacoginitve processes that are needed in order to learn to learn, and how the teacher may become a facilitator of the pupil's learning. Table 7 is an attempt to simplify the differences between the three perspectives.

Table 7: A classification of the three perspectives

	Institutional theory	Organizational learning theory	Learning strategy theory
Level of analysis	Macro-to-micro	Micro-to-macro	Micro
Units of analysis	External institutional pressure, institutionalization, isomorphism, decoupling, hypocrisy	Collective learning, defensiveness, routines, organizational memory, productive communication	Teaching, planning, monitoring, adaptive learning, self regulation, cognitive and metacognitive skills
Basic assumptions	Structural-social	Cognitive- social	Cognitive- individual

This is a broad classification, and the distinctions are certainly blurred. In addition, the perspectives represent a variety of schools. We have for example shown that institutional theory also embraces schools that are focusing on the institutional actor. Organizational learning theory includes schools emphasizing information processing and organizational memory theories, and learning strategy theory includes social schools as well as cognitive schools. The categories still represent different angles of illumination. By bringing them together we do not mean to melt them into one new perspective. Rather, we will apply the different perspectives in order to avoid myopia and to see different aspects of the same room. As the psychoanalyst and novelist Clarissa Pinkola Estés put it; when you walk into a

dark room with a flashlight, you illuminate a part of the room; the rest still remains in darkness (Estés 1992). If you bring three flashlights into the same room, however, you do not necessarily see more of the room if the flashlights are fused into one strong light illuminating in the same direction.

5   FINDINGS AND ANALYSIS

Our aim has been twofold: First we hoped to find which direction the attention of school teachers and managers tended to take in the midst of the reform. We were primarily interested in to what extent teachers and school managers tend to spend their time on individual or collective focus activities and programs. Secondly we hoped to understand why they focused the way they did, and what the possible consequences might be when it comes to accomplishing the reform's goals.

5.1   Two findings

We have two findings: First, our cases point to a difference between school managers and teachers when it comes to where they direct their attention. While school teachers participate in educational programs that cover traditional subjects such as math, language, history etc, as well as programs that focus on didactic skills, school managers primarily take part in programs that deal with school management and how to develop learning schools.

Secondly, we have seen from the analysis of the innovation projects in the OIM case, that eight out of thirteen teachers chose adapted learning in the form of learning styles in general and Dunn and Dunn's version in particular as the subject of their innovations.

Thus we will conclude that the teachers and the managers in our samples tend to focus in different directions: Teachers are going through programs with a micro level focus and tend to prioritize individual oriented innovations, that is, dealing with the teacher's relation to the pupil. The programs that to a larger degree have an organizational focus are first and foremost populated by school managers.

If the tendency is symptomatic for the competence strategy as a whole, we suspect that the competence strategy might create a polarization between an individualistic orientation and a collective orientation towards teamwork, collaboration and the learning school, where the first is represented by the teacher, the second by the school manager.

5.2   Why do teachers prefer the individual perspective?

School personnel, whether teachers or managers, usually have an education where the focus is on the individual level, that is, on teaching (primarily) in the classroom. For most of the teachers, it is a question of learning more of the same when they participate in the micro level program: The typical participant in a math program is a math teacher, and so on, refreshing and elaborating his or hers math and math teaching skills. If we apply Selznick's institutional perspective (Selznick 1957), one explanation might be the fact that schools due to the large degree of freedom teachers experience in their daily teaching, are highly institutionalized organizations. Selznick claims that the institutionalization process develops faster in organizations where the actors may "put their individual fingerprint" on their work. That should go for teachers as well. In fact, according to Statistics Norway,

among the major professions in Norway teachers report the largest degree of influence on the way they work (Statistics Norway 1995). One consequence of high degree of institutionalization, is according to Selznick that the actors resist changes when the changes are perceived as threatening to established relationships to clients (e.g.; in the case of teachers pupils, parents and peers) as well as to valued ways of working.

This explanation brings us close to organizational learning theory. If we choose to see the challenges teachers are facing as learning situations, some challenges would be single loop learning and some would be double loop (Argyris and Schön 1978). Single loop learning does not require that basic assumptions and governing values are inquired into. After minor modifications have been done, you can basically continue doing what you already are doing. For most teachers it is probably a minor challenge that requires no more than single loop learning when they participate in competence programs that deal with subjects they have been teaching for years.

However, the reform's quest for collective learning, teamwork, learning environments, and collaboration challenges teachers in more profound ways. Single loop learning will probably not be sufficient, and double loop learning will be required. Well established ways of planning and teaching has to be changed, and basic assumptions will be challenged. In this organizational learning perspective most teachers will choose what will require the smallest effort. This would be no surprise and is absolutely understandable, since Norwegian teachers among the major professions are the ones that experience most stress at work (Statistics Norway 1995).

5.3   Why the focus on learning styles?

How then can we explain the strong focus on adapted learning in general and learning styles in particular? First of all: Adapted learning is one of the reform's main principles. The strategy document from the Ministry of Education and Research in the fall of 2005[§] call for "adequate adapted learning", "necessary to strengthen adapted learning", "responsive to variations in pupils' backgrounds and needs", "equal opportunities for learning through adapted, and not identical, learning procedures", "adapted, and not identical, learning procedures", "education must therefore be varied and differentiated". In other words, teachers who focus on the individual level do so with good reasons. However, The Ministry of Education and Research's strategy document never mentions learning style theories or Dunn and Dunn's methods. It asks for learning strategies, not learning styles. In an attempt to highlight the major goals of the reform, the Ministry of Education and Research developed what they refer to as a "Quality Framework". The Quality Framework incorporates eleven basic commitments, obligatory in all schools and apprenticeship workplaces. One is that schools and apprenticeship workplaces shall "Stimulate in pupils and apprentices/trainees the development of their own learning strategies and of their capacity for critical thought". Another is that schools and apprenticeship workplaces shall "Promote adapted teaching and varied working methods".

Adapted teaching and learning strategies are in other words introduced as a general principle in schools. The reform asks for individualized, adequate adapted learning responsive to variations in pupils' backgrounds and needs. At the same time the reform

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[§] Norwegian Ministry of Education and Research: Competence for Development. Competence for Development Strategy in Basic Education 2005 – 2008

offers teachers and schools freedom of choice. The answer from many schools seems to be to implement methods built on learning style theories and multiple intelligences, and in particular Dunn and Dunn's concept.

Applying an institutional diffusion perspective, we might see Dunn and Dunn's model as an example of a "traveling recipe". In international business we have long seen management ideas and organizational solutions move across borders like epidemics (Røvik 1996). Also non-profit organizations such as schools are targets of traveling ideas. "Dunn and Dunn" is world wide phenomena, and as such not only an epidemic; it is a pandemic. Some schools and some local governments have simply decided that they are going to implement Dunn and Dunn's model for learning styles, referring to other schools and municipals that have done the same, or to the reform's quest for adapted learning. So one explanation could be that they just want to appear "modern", or that the pressure from the institutional field is so great that "we feel like we have to, even though we do not want to".

The reform puts substantial pressure on the schools. They are expected to become learning schools that offer adapted, differentiated learning to all pupils. This is a problem that has to find a solution. Dunn and Dunn offer a solution. More than many other theories, it is presented in a straightforward way as a toolkit. You can buy what you need of assessment tools on the internet and there are consultants that can train your staff. If the reform represents a problem, then Dunn and Dunn offer a solution.

If this is a good solution or not is debated. In an assessment of 13 different learning style models Coffield et al. advise against pedagogical intervention based solely on any of the learning style instruments. When it comes to Dunn and Dunn, they state that there is a serious lack of independent evaluation of their instrument: "Despite a large and evolving research programme, forceful claims made for impact are questionable because of limitations in many of the supporting studies and the lack of independent research on the model. Concerns raised in our review need to be addressed before further use is made of the model in the UK." (Coffield et. al. 2004).

However, some neo-institutional schools point to the fact that external ideas seldom are imported in mechanistic ways. Some degree of local edition of the traveling recipes will always take place (Sahlin-Anderson 1996). Few organizations succeed if import is seen as a mimetic imitation only. The local actors edit and adapt the ideas in such a way that they fit into the local tradition, routines and language. This process can be understood as a process of learning. If the import and editing of Dunn and Dunn's method will be seen as a real help for teachers, then the ideas will probably be adapted and incorporated into the teachers' ways of schooling. If the methods are seen as making teaching more difficult, and the pressure from the institutional field is strong, we suspect that decoupling (Meyer and Rowan 1977) and hypocrisy may be the result (Brunsson 1995).

5.4 Discussion: How may the polarization affect the reform?

As we have shown, Competence Promotion is a reform that not only aims at improving the pupils' learning, but also at developing learning schools. In order to give students a good education in a society which is more diverse and more demanding in terms of knowledge, a "culture for learning" is said to be the condition for the implementation of the new reform goals. In deed, for Norwegian schools to become learning organizations was highlighted by

the former Minister of Education and Research as the most important goal of the new reform. Norwegian schools are now said to become learning schools, and collaboration, flexibility, learning, adoption, competence, learning environments, collaborative contexts and individual and collective learning are among the most frequently used phrases in the reform documents presented by the ministry.

Although learning organization and organizational learning have been a part of organizational theory for years (Argyris and Schön, 1978; Senge, 1990), few teachers have been exposed for the concepts in their professional education. The ideas have now been introduced for Norwegian schools as part of the Competence Promotion reform, and the relation between good teaching and good collective practice has become an issue. That the school as a whole is important for the quality in the classroom, has long been proved. Rutter, for example, found in his study of schools in London that the best schools were characterized by an ethos; a collective practice and awareness that other schools did not have (Rutter et al. 1979). In recent years several Scandinavian studies have pointed to the relationship between the school as a learning organization and the quality of teaching (for example Bungum et al. 2002; Dahl et al. 2003; Dahl 2004; Møller and Fuglestad 2006). However; compared to Dunn and Dunn's highly operationalized model of learning styles, organizational learning becomes a vague and less actionable concept. From a scholarly point of view, it is tempting to ironize and call Dunn and Dunn's model a quick fix with little substance. From a practitioner's point of view, their concept offers better specifications about steps to take than organizational learning theory seems to do.

Nevertheless, the early reform documents clearly stated that developing learning schools were both a goal by itself and a prerequisite in order to develop differentiated, adapted learning. If that holds water, one might wander if the reform will become a success as long as the ideas and knowledge about learning organizations become restricted to the school managers.

From 2000 through 2003 a project to the cost of approximately one hundred million US dollars was undertaken in Norwegian primary schools in order to enhance quality of teaching. Dahl et al. evaluated the project and conducted a quantitative survey of 1,203 school managers, teachers, parents and pupils (Dahl et al. 2003). In addition they carried out interviews in four municipalities and several schools. Analysis of the data made is possible to divide schools into two groups; collectively and individually oriented schools. In the collectively oriented schools there were more cooperation, more collective planning and teaching, the development of the school was seen as a collective challenge and the attitude towards collaboration was generally positive. Compared to the individually oriented schools, the collectively oriented schools reported a better learning environment for the pupils: The pupils seemed to learn more, the teaching was more adapted to the individual pupil, the pupils were to a larger degree taking part in the development of individual learning goals and the teaching and learning methods were more varied. In essence: Collectively oriented schools succeeded to a larger degree in offering adapted learning and individualized learning. In addition, teachers in collectively oriented school were more satisfied than their colleagues in individually oriented schools when it came to their own professional freedom, even though they spent more time at school and more time at teamwork. A collective focus did not compete with an individualistic focus, on the contrary, the collective orientation and practice made successful differentiation possible: A good learning school facilitates good teaching, and good teaching facilitates good learning.

5.5   Conclusion

"The main challenge for the school as a learning organization is to develop a learning environment and organize it in such a way that it promotes optimal learning for pupils and for staff in a professional community. " (Ministry of Education and Research 2004).

Competence Promotion is a reform that has developing learning schools as a central goal as well as a prerequisite in order to facilitate adapted learning. We suspect that the orientation of teachers towards familiar and singular subjects on the individual level while leaving the organizational learning programs to the school managers may lead to suboptimalization that in turn will make it difficult to establish the collaborative contexts and collective learning that the Ministry of Education and Research has asked for. Schools, like other work organizations, may develop myopia that prevents organizational learning, and one type of myopia may be teachers being first and foremost focused on teaching their primary subjects.

We are of course not arguing against singular subject skills: Skills in mathematics, history, language and so on are utterly important, and, if the teachers are not up to the required competence, there is a need to fill the competence gap in one way or another. What we question is rather what the effects will be if the teachers primarily participate in individual level and singular subject programs, while the school managers participate in programs emphasizing organizational learning. The professional development of teachers has told them that the pupil is the most important object of their work. Few teachers have learned that a learning school with teachers and school managers that function as a group of collective learners is a prerequisite in order to develop individualized adapted teaching. Even fewer have learned how to change their school into a learning organization. If the reform reinforces the teachers' focus on the pupil, without at the same time developing an understanding of the importance of the collective in order to give the pupil high quality education, we suspect that school managers will face a tough job when they after participating in organizational learning programs return to their schools in order to change them into learning organizations.

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