WORK AT SCHOOL AS AN ENVIRONMENT OF KNOWLEDGE AND LEARNING

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Abstract

Recent educational reforms have targeted the school as the unit of change although professional development efforts are generally directed towards individual teachers. The implied assumption is that teachers disseminate their individual learning, resulting in more widespread learning or change within the organization. However, the literature indicates that dissemination in schools is not prevalent and little is known about the formal and informal processes by which teachers share their learning in schools and school systems. Yet, unless individuals disseminate or share what they have learned, "insights gained from action and reflection are not fully realized at the organizational level" (Shaw and Perkins, 1992, p. 178). Building an understanding about the vital step of dissemination in organizational learning is important for both leveraging and institutionalizing lessons from school improvement efforts.

INTRODUCTION

Most theories of knowledge do not make a distinction between epistemology and ontology of knowledge. However, in some theories this distinction has been made. Blackler (1995) describes five images of knowledge: encoded, embedded, embrained, embodied and encultured knowledge. Encoded and embedded knowledge express the objective resources of knowledge because they are not directly linked to human resources.

Instead of that, embrained and embodied knowledge are individual characteristics and that is why they are subjective resources of knowledge. The fifth type of knowledge is encultured knowledge. Its formation is not solely dependent on humans but also on the objective, informative and materialized resources of an organization. These types of knowledge can be presented as a triangle separating theory, practice and experience.

Prepositional knowledge, "knowing what" can be placed in the dimension of encoded and embrained knowledge. Accordingly, procedural knowledge, "knowing how" can be placed in the practical dimension of embedded and embodied knowledge.

Kolb (1984) describes learning as an individual process: concrete experience –reflective observation – abstract conceptualisation – active experimentation. Nonaka's and Takeuchi's (1995) description of producing organizational knowledge includes the same phases but in the level of shared action: sharing experiences – reflecting collectively – networking new knowledge – learning by doing. Similar phases also are described by Crossan et al. (1999) but with different definitions: intuition formation – intuition interpreting – integration of interpreted knowledge – knowledge institutionalisations. The most essential point in producing learning and knowing is not what happens in the levels of an individual, a group or an

organization but rather what occurs between these levels. Thus, it is more fruitful to use expression of the individual, shared and organizational contexts of learning at work integrating the action defined by situation, time and place.

TEACHERS' VIEWS OF KNOWLEDGE

Teachers generally view knowledge as something gained through individual experience. "Responsibility for accumulating, evaluating, and disseminating knowledge about teaching and learning has not been vested in teachers.

Teachers have few mechanisms for adding to the knowledge base in teaching and leave no legacy of insights, methods, and materials at the close of a long career" (Little, 1987, p. 502).

Additionally, teachers' view of knowledge tends to have a "pragmatic/ instrumental focus" (Huberman, 1983, p. 486). Instead of engaging in a coherent search for knowledge based on a tradition of best practices, teachers continue to extend their teaching repertoires with a potpourri of ideas culled from any available sources. Innovations must work for them and have "rapidity of payoff" in order to be considered effective (p. 488). This "practicality ethic" (Doyle and Ponder, 1977-78, p. 2) means that changes "which are seen as practical will be incorporated, at least tentatively, into teacher plans". Moreover, teachers are "considerably more interested in and responsive to immediate student reaction rather than evidence of long-term goal accomplishment . . .. Equally or perhaps more importantly, teachers appear to do a rough cost-benefit analysis; that is, they weigh the amount of return and the amount of investment" (pp. 4-5, 8). The benefits are generally psychic rewards "such as recognition and student enthusiasm" (p. 8). Students' success or progress, in turn, acts as an "informal indicator of [the teacher's] success" and contributes to a "sense of usefulness" (Argyris and Schon, 1978; Daft and Weick, 1984; Fiol and Lyles, 1985; Jackson, 1990, p. 134, Pyrgiotakis, 1999).

As well, Pyrgiotakis (1999) found that teachers are clearly reluctant to present themselves as searing colleagues. Their talk underlines the idea of adapting others' practices to their personal styles and situations. They describe the 'tricks of the trade' they picked up – not broader conceptions, which underlie classroom practice. The assumption appears to be that ideas and practices depend on the person or personal style of the teacher (a what's-best-for-me approach) and the context of (a what-works-with-the-students). "The teacher is the judge of what works" (Jackson, 1990, p. 78). As one of Pyrgiotakis (1999) teachers explained, "I think that it is important that a teacher is respected for her own ideas about teaching and is not told how to do it".

Also, schools, like other organisations, are facing greater uncertainty and new challenges (Castle and Estes, 1995; Cooper and Henderson, 1995; Hough and Paine, 1997). Schools have also been urged to make significant transformations to adapt and survive (David, 1991; Fullan, 1993, 1995; Noddings, 1995; O'Neil, 1995). An emerging picture of the "new" school is that of a learning organization or community. But, although there is information in the theoretical literature about what such a "new" school may look like and how it may evolve (Cardno, 1995; Isaacson and Bamburg, 1992; O'Neil; Patterson, 1993; Sergiovanni, 1994; Koulaidis 2005), there is little evidence about the extent to which the idea is feasible in actual practice. However, some encouraging results are emerging from a number of schools (Cocklin, 1999; MacBeath and Mortimore, 2001). These schools have also identified certain barriers, which need to be overcome if a lasting transformation is to be achieved (Buckler, 1998; Field and Ford, 1995; Fulmer and Keys, 1998).

LEARNING AND ASSESSMENT IN THE "NEW" SCHOOL

Teachers in learning communities teach and continue to build their own learning at the same time. They are more involved in the making of major decisions, sharing authority with the principal (Engel, 1990; Johnston et al., 1990) and acting as a link between the school and parents (Comer, 1986). Parents play a greater role in their children's education by learning themselves, promoting learning for their children, and participating in school decision-making processes (Clark, 1996). Students may also be asked to play a greater role than is typical in traditional schools (Schaps and Solomon, 1990; Trimble, 1996; Pyrgiotakis 2000).

According to Kolb (1984), reflective observation is an essential part of learners' activities. In this way, it can be understood as a uniting factor of the processes of learning and assessment. The learner is not only a owner of the learning process but s/he owns the processes of assessment as well. The capability to assess the learner's own knowing is the most important factor for understanding and influencing the situation and the context of action. The process assessment creates the basis of guiding self-assessment and of assessing outcomes or products of learning activities.

THE RESEARCH

The essential point in producing learning and knowing is not what happens in the levels of an individual, a group or an organization but rather what occurs between these levels. Thus, it is more fruitful efficient to use expression of the individual, shared and organizational contexts of learning at work integrating the action defined by situation, time and place.

The processes generating learning and knowing can be described by integrating the equal dimensions of theories mentioned above:

- Social processes (concrete experience – sharing experience – intuition formation).
- Reflective processes (reflective observation – reflecting collectively – intuition interpretation).
- Cognitive processes (abstract conceptualisation – networking new knowledge –integration of interpreted knowledge).
- Operational processes (active experimentation – learning by doing – knowledge institutionalisation (see Kassotakis, 1999, Pyrgiotakis 1999, Konstantinoy et.al. 1999).

The aim of an old fashioned assessment concentrates mainly on operational outcomes and cognitive functions. The operational assessment is limited to measuring an individual's skills, knowledge and attitudes and does not reach the shared and societal nature of a profession. However, the duty of pedagogical assessment is not only to measure operational components of knowledge and skills but also to reach the processes enabling both. When the assessment is focused on the social processes the learners' skills are observed in various ways. How the learners use different kind of action models? How do they face different problem situations and show innovative creativity? How do learners follow instructions and principles of action and manage the total work environment? Are the tasks done fluently and managed well by learners?

DEVELOPING THE CRITERIA FOR ASSESSMENT

The criteria based on these processes of learning and knowing has been piloted in the Greek education system (28 all -day pilot schools and pilot programme "Flexible zone") during the years 1998 –1999 and 2001 -2002.

The further purpose of this study was to:
(1) further clarify, in the school context, the concept of a learning community;
(2) identify the barriers that are perceived to obstruct the transformation of traditional schools to learning communities; and
(3) examine the processes initiated by school principals who actively endeavour to transform their schools into learning communities.

The goal of the pilot project was to develop pupils knowledge, communicate and leadership skills. The content of social, reflective, cognitive and operational processes was defined for each field of knowing. Then utilizing the scale assessed these pupils.

Satisfactory is fulfilled when the learner:

- Is able to perform the basic learning tasks.
- Copes with familiar situations and takes part in the activities of his or her team.
- Follows directions and asks for help when needed.
- Remembers and understands the basic concepts and the content involved in the teamwork.

Very satisfactory means that the learner can perform:

- The basic learning tasks and also rationalizes them.
- Is an active and responsible member of the team and is also able to cope in unexpected social situations.
- Is able to develop her/himself, recognizes faults and problems, and makes an effort to find solutions.
- Outlines, classifies, compares and rationalizes her or his actions.

The excellent level is reached when the learner performs:

- The basic learning tasks in an adaptive and innovative way.
- Interacts flexibly in different situations and engages in the development processes of the work community.
- Is able to encounter problems and challenges by taking into account new aspects and ideas.
- Has a critical and innovative attitude towards knowledge, action and solutions needed at work.

SUMMARY OF MAJOR FINDINGS

(1) The concept of schools as learning communities

The literature demonstrates that, even in the more general non-school context, it has been difficult to operationalise the concept of a learning organization (Garvin, 1993; Leithwood et.al.1998). It is not surprising then that school practitioners could not agree on its meaning. Also some definitions focused on both individual and group life-long learning while others referred to parent involvement, continuous improvement, shared vision, quality teaching and learning, and curriculum improvement. When all the definitions were pieced together the school as a learning community was perceived as a place where life-long learning takes place for all, for their own continuous growth and development, teachers act as exemplary learners, students are prepared adequately for the future, and mistakes become agents for further learning and improvement. Furthermore, it is a place where collaboration support is nurtured, clear-shared visions for the future are built, and the physical environment contributes to learning. At the last decade, all respondents felt that the definitions they proposed were sound and comprehensive. They were committed to change; they knew what they wanted in their schools, these changes to the "new" concept of the learning organization to provide a cohesive philosophical base and legitimacy for their programs.

Respondents proposed that a number of special characteristics distinguish learning community schools. These characteristics, many of which may be encountered in any "good" school, are a collective life-long learning culture, a commitment to professional development and improved student outcomes, enthusiasm and professionalism, a sense of inclusion and openness, sharing, building of a common vision, vitality and empowerment. It was felt that collaboration and teamwork could not succeed without clear channels of communication and reflective dialogue (Leithwood et al 1998). Also, respondents referred, in contrast to the literature, the importance of periodic review and evaluation of the school's goals and priorities (Leithwood et al., 1998).

(2) Even among those who are highly committed to the concept of a learning organisation there is no clear and accepted understanding of its meaning (Braham, 1995; Calvert et al., 1994; Garvin, 1993; Senge, 1990).

(3) There is a strong belief among respondents that the concept has much to offer in the positive transformation of their schools (Cardno, 1995; Fullan, 1995; Isaacson and Bamburg, 1992; Sergiovanni, 1994).

(4) Principals' beliefs, philosophy and experience, together with favourable or unfavourable pre-existing conditions within traditional schools, were the main reasons for principals to embark on the transformation of their schools.

(5) Barriers that obstruct the transformation process vary from one school to the other. Traditional school cultures and structures lack of the necessary time, and the difficulty of obtaining support from staff and parents appear to be the main barriers to the change process.

(6) The most effective processes of change were reported to be the encouragement of professional development for staff, the promotion of the vision and goals for the school and the reasons for supporting the idea of a learning organisation.

(7) Most evaluation was informal or semi-formal in approach. This could raise questions about the objective validity of some of the observations.

(8) There is some evidence that schools in socio-economically disadvantaged areas, in which have more younger staff, are more inclined towards the idea of the learning organisation than well-established schools in higher socio-economic areas with teachers of an older generation who may be more predisposed towards the "status quo".

(9) There were mixed feelings among respondents about the role of the Pedagogical Institute role relating to schools as learning communities. The Pedagogical Institute was seen to promote the idea and offer some early support, but they felt that were then left to continue the most difficult part of the process without further resource support.

CONCLUSIONS

It is clear from this study that, there is confusion about the meaning of the learning community. Perhaps this is because there are much literature associated with the learning organisation (Cardno, 1995; Fullan, 1995; Senge, 1990) concentrates on theoretical aspects of knowledge acquisition and as a result the concept remains out of reach for many who are convinced of its value and wish to operationalise it in their own organisations. Garvin places the blame for this on scholars, who often present the concept as a utopia (Fullan, 2001; Hargreaves, 1994 et al.) and a "philosophy, not a program" (Solomon, 1994, p. 59). For practitioners this generates uncer-

tainties and confusions, as to the exact nature of their goal and how to measure their success. Part of the problem, at least in the school context, is that definitions of a learning organisation are insufficiently focussed on what is unique about the concept and therefore fundamental to its understanding.

From the findings of this study it can be argued that the concept of schools as learning communities, in spite of its ambiguity, is perceived by many school leaders to have practical application. If that can be achieved, there are positive implications for school systems, schools, principals, teachers and school communities. In summary, the study highlights the necessity of additional research into a dimension of school as a learning organisation. Future research needs to investigate carefully the relationship of this with genuine real change in teaching and learning practices that enhance student-learning outcomes.

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