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The Corporate Curriculum: a Working-Learning Environment

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Organizations that offer a powerful learning environment to their employees, tend to be more innovative and to provide better quality than those that do so to a lesser extent. This hypothesis has been explored and tested in a large number of institutions of public Health and Welfare in the Netherlands. The research project described provided promising data to support the theory tested. Furthermore the project led to the construction of a diagnostic instrument for organizations to analyze their own work environment as for its quality as a learning environment.

Key words: Knowledge productivity, Corporate curriculum, Learning

Introduction

The paper focuses on the development of a corporate curriculum: a plan for learning in service organizations, health care, business and industry in the context of a knowledge economy. Partly it provides a theoretical framework; partly it presents a report of the second phase of a three-phase research project conducted in the Netherlands in 42 institutions for Public Health and Welfare.

The following aspects will be addressed:

- a. The impact of a knowledge economy on learning in organizations
- b. Knowledge productivity as a dominant indicator for successful performance
- c. The corporate curriculum as a set of learning functions that gear toward knowledge productivity.
- d. The results of research activities supporting the theory presented

The main question dealt with in this paper, is the question what elements in the working environment contribute to the learning processes needed in organizations in order to adapt to, or be ahead of developments in society.

Theoretical framework:

Knowledge productivity

Nowadays challenges of increasingly fast extending information and knowledge have profound implications for the way in which organizations operate and compete. The most effective organizations are those that are capable of signaling new trends and developments, those that are able to develop new knowledge and that know how to disseminate and apply this newly developed knowledge. In doing so organizations will prove to be more capable to innovate and to provide better quality services and products. Organizations that have the ability described here, we call knowledge productive. In the design of this study, knowledge productivity was elaborated along two lines.

1. The innovative ability of an organization. (change)
2. The ability to enhance the quality of existing approaches (improvement)

The corporate curriculum

The process needed to enable both individual professionals and their organization to be knowledge productive basically consists of learning. The learning processes meant might be triggered by the environment in which the individuals operate. The work environment thus functions as a learning environment. It is this work- learning environment we refer to as the "corporate curriculum". Theories of learning provide a basis for analyzing the richness of such an environment seen from a learning perspective.

The corporate curriculum consists of all the intended and not intended conditions that affect the learning processes among the workers in organizations.

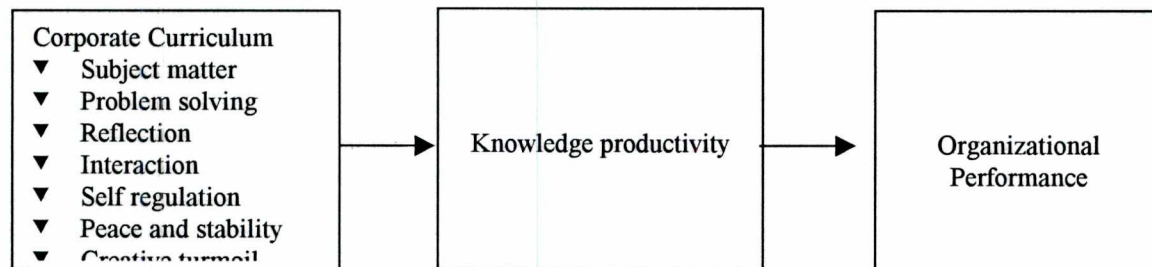
In order to emphasize that the concept of the corporate curriculum does not only include the intentionally planned elements in the work environment, we like to refer to this curriculum as something that is a mix of natural and man made conditions. The corporate curriculum should be viewed as a rich landscape in which personnel and teams find

their ways and construct knowledge. An organization that tries to improve its knowledge productivity will focus on the analysis and support of the following learning functions (Kessels 1996):

1. *Subject matter expertise*: Acquiring subject matter expertise and skills directly related to the target competencies. The competencies related to acquiring subject matter expertise have been the main objective of training and development.
2. *Problem solving*: Learning to solve problems in new and ill defined problem areas by using domain specific expertise.
3. *Reflective skills and meta-cognitions*: Developing reflective skills and meta-cognitions aiming at the identification and understanding of determinants of successes or failures in learning
4. *Communication skills*: Securing communication skills that provide access to the knowledge network of others and that enrich the learning climate within a workplace.
5. *Self-regulation of motivation, emotions and affection*: Procuring skills that regulate the motivation and affections related to learning.
6. *Peace and stability*: Promoting peace and stability to enable specialization, synergy, cohesion, and integration. Peace and stability are necessary for gradual improvement.
7. *Creative turmoil*: Causing creative turmoil to instigate innovation. Creative turmoil brings the dynamics that push towards radical innovation and leaving traditional paths behind. Creative turmoil requires a certain amount of existential threat

Of the seven functions mentioned, five refer directly to distinct learning processes. Two of them refer both to conditions of learning (peace and stability and creative turmoil), and to the processes of learning how to control those conditions. This ambiguous nature of these functions made us decide to focus on the first five functions and leave the sixths and seventh function for the third phase of the project.

The policies, the activities, and the conditions an organization develops to promote the learning functions form its *corporate curriculum*: the plan and the conditions for learning to increase knowledge productivity. Knowledge productivity in turn is assumed to have an impact on the eventual organizational performance.

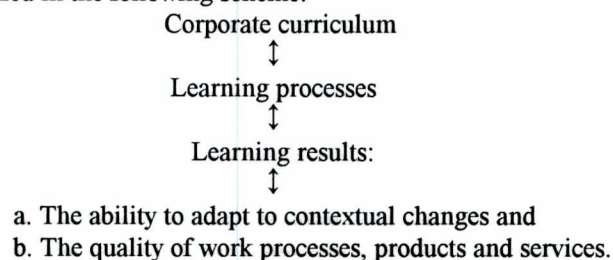


Problem statement and research questions

The theory outlined above may be summarized in the following statement, which at the same time serves as our general hypothesis:

The more powerful the learning environment provided by an institution, the more an institution will prove to be knowledge productive, which eventually will show in a better organizational performance.

Phrased slightly different, this means the more elaborated, or the richer the corporate curriculum, the more knowledge productive people and work units, working in that particular environment, will prove to be. The increased knowledge productivity will become evident in better processes, better products and better services. The assumed relation is visualized in the following scheme:



In order to find the evidence needed, the following four research questions were formulated:

1. To what extent are the functions of the corporate curriculum fulfilled in the investigated organizations?
2. What elements in the work environment promote these functions?
3. Is there a relation between the extent to which functions are being realized and the innovative ability the organization appears to have?
4. Is there a relation between the realization of the functions of the corporate curriculum and the quality shown in work processes, products and services rendered by the organization?

Research methodology

The project was set up as a two-phase design. A third phase, which is not yet completed, was added later. The first phase consisted of a number of case studies and study of literature to identify possible variables operating within a corporate curriculum. A number of sources of literature were analyzed in order to identify the variables that should be included in further investigations.

Five institutions were selected, that were considered rich and well elaborated cases in various sectors of Public Health and Welfare. In each of the cases interviews were held from a variety of perspectives. Interviewees were asked to describe their career and identify important learning opportunities and experiences. Furthermore they were asked to describe the information, communication and documentation arrangements in their organization. Finally they were asked to describe the history of their organization and to identify important moments of progress for the organization. Based on both the study of literature and the interviews a series of questionnaires was developed. Then a more extensive second phase of the project followed. It is this particular part of our research on which we concentrate in this article. This phase included a survey among 82 working units in institutes for Public Health and Public Welfare. It was decided to choose work units as our focus instead of organization as a whole. This decision was made on two grounds. First of all for reasons of feasibility and reduction of complexity. That was the weak part of our choice. Secondly it was made for reasons of utility of the instruments to be developed. We felt that work units rather than organizations would be the entities that decide to do a self-analysis and to develop their own learning environment and policies. Especially in the larger organizations we identified a strong tendency towards decentralization, leaving the decisions to the units.

The perspective chosen is a learning perspective. For each of the functions of the corporate curriculum questions were constructed in order to identify to what extent the investigated learning processes actually could be identified. For each of the learning processes related to the first five functions of the corporate curriculum items were developed. The items are meant to identify whether, and if so, to what extent motivating conditions, a rich environment, room for experimenting and feedback are available and effective.

In addition to that, respondents were asked to mention conditions they experienced as either facilitating, or obstructing the processes involved (instrument 1).

Furthermore an inventory was constructed to inquire about the elements included in the work environment, that might be promoting these learning processes according to the outcomes of the first phase of the project (the elements in the work-learning environment, instrument 2). The first instrument was mainly based upon theoretical concepts of learning; the second instrument mainly upon organizational theories, enriched with the variables mentioned in the interviews held in the first phase of the research project.

Thirdly an instrument (3) was designed to investigate what innovations (within a few national policy trends) the units being studied, had implemented over the last years. A general trend in the field under analysis, is an increasing need for more client centered approaches and more tailor made provision of services. Concerning this trend respondents were asked to identify to what extent their organization has been effective in developing new strategies. The questionnaire consists of items to identify to what extent the organization has been able to signal national developments, to actually work out new strategies and to implement these new approaches. The respondents had to answer a number of questions keeping a particular innovation in mind. The questions, however are the same regardless the innovation chosen.

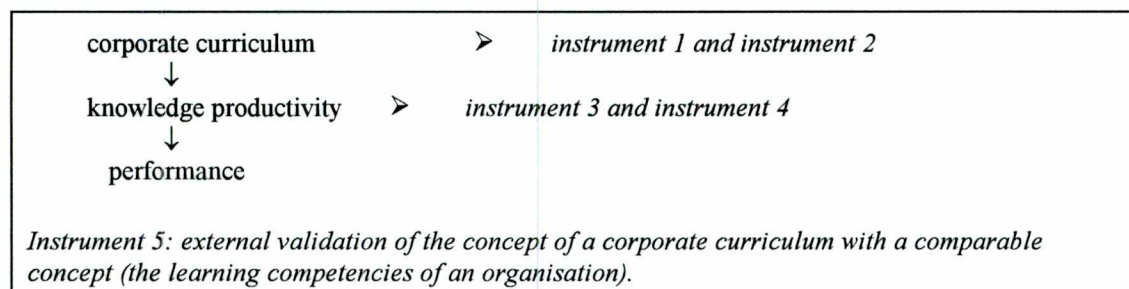
Based on quality indicators recognized and used in the sectors being investigated, an instrument was developed to identify the level of quality provided by the studied work units (instrument 4). In order to develop this instrument we could include a number of items of existing quality-instruments.

Finally an existing instrument was selected. This instrument measures a related concept. In this particular case an instrument was chosen that measures the four competencies of a learning organization (Sprenger, 1995). This fifth instrument was included as a means for external validation of the concepts used in the first two instruments. The

concept measured in this particular instrument includes many elements of what we consider the components of knowledge productivity.

In sum, the first instrument identifies the learning processes taking place. The second instrument checks whether organizational conditions that might be influencing these processes actually may be identified. Together the first two instruments give a full picture of the corporate curriculum in operation in an investigated work unit. The third instrument indicates the innovative ability of the unit, while the fourth instrument provides an indication of the level of quality of the work processes of the unit. Together the third and the fourth instrument measure the concept of knowledge productivity. The fifth instrument is included for validation purposes.

The relation between the concepts and the instruments



The investigated institutions, units and staff

In the first phase of the project we selected a number of cases (5). Instead of selecting them at random we deliberately decided to choose a small number of 'avant garde' organizations. We hoped to be able to see more of the dynamics of the processes we intended to study in organizations that were actively dealing with matters of learning, innovation and quality enhancement.

In the second phase, the survey phase, we chose another way of selecting work units. We tried to choose the units in such a way that they would cover:

- a. the various distinguished sectors within the field of Public Health and Welfare;
- b. both innovative and more conservative organizations;
- c. units within large organizations as well as units of smaller organizations.

In reality we approached the intended coverage quit well, but it appeared impossible to actually choose particular organizations. To some extent we just had to accept the organizations that happened to be prepared to cooperate. 48 institutions were included in the project, each participating with two work units, making 96 units in total. Each work unit in turn participated with three workers and one head of the unit. Besides that, two persons either responsible for training or professional development, or for quality enhancement or quality management participated on behalf of the institution. This makes 10 respondents per institution.

Not every respondent appeared to have followed the instructions for filling in the questionnaires, so in the end it appeared that from the 96 units that would have been included only 82 could actually be analyzed. In total the number of respondents was 381, 271 of which are workers, while the others are either managers or people responsible for quality management or training.

Research analyses

In the first phase of the project, we did case study research. Literature searches and analyses were done, semi structured interviews were held, cases were described based on the interview data. The cases were fed back to the respondents and authorized. Furthermore the cases were analyzed both together with the respondents (in focus groups) and with groups of experts (expert groups). Within case analyses and cross case analyses were carried out. Based on these analyses variables were identified and questionnaires were constructed.

At this point the survey among a large number of organizations started. Vast amounts of data were collected and processed. To find answers to the research questions, two kinds of analyses were conducted:

1. A principal component analysis, to check the quality of the individual items and to find out what are the most important dimensions within the concept being measured;
2. Canonical correlation analyses, in order to identify the strength and the nature of the relation between the

concepts measured with the different instruments.

The following scheme shows what the different instruments contribute to finding support for the different research questions.

The relation between the research questions and the instruments

1. To what extent are the functions of the corporate curriculum fulfilled in the investigated work units?	➤ Instrument 1
2. What elements in the work environment promote these functions	➤ The correlation of the results of instrument 1 and 2
3. Is there a relation between the extent to which functions are being realized and the innovative ability work units appear to have?	➤ The correlation of the results of the instrument 1 with 3
4. Is there a relation between the realization of the functions of the corporate curriculum and the quality of work processes, products and services rendered by work unit?	➤ The correlation of the results of instrument 1 with 4

Outcomes

The instruments used were analyzed. A few items had to be skipped. The principal component analysis showed that the instruments 1 and 2 form together a valid instrument to map the elements in the learning environment (instrument 2) and measure the power of the learning environment (instrument 1). Instrument 1 appears to measure a homogeneous factor, the power of the learning environment. The analysis revealed two contrasts. One was interpreted as a contrast between social and individual learning, the other as a contrast between the learning of subject matter and a kind of meta-learning, learning how to learn. In our view these contrasts coincided with the curriculum functions we had distinguished between, to such an extent that we felt we could stick to the original categories within our questionnaire.

In the second instrument we found also a strong first factor and furthermore confirmation of most of the distinctions we made in constructing the instrument. The components found are shown in the 6 figures included in this section of this article. Those found in the instruments 3, 4 are also shown in these figures. After analyzing the instruments separately, we concentrated on the relation between the instruments.

The study shows a very strong correlation (0.831) between the learning processes identified and the elements included in the work learning environment (figure 1). In that sense it strongly supports the findings of the first phase of the project. The second and the third relation (figure 2 and 3) we have not yet been able to interpret satisfactory.

Figure1.

