

# PROPOSAL OF A MODEL TO EVALUATE THE EXISTING PRINCIPLES OF LEARNING IN A HOSPITAL

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## ABSTRACT

This paper aims to present a framework to evaluate organization learning in Hospitals. Four learning principles were defined: learning processes, transformation, action and reflection towards learning. To each principle was diploid a set of analysis variables. A case study was developed in order to evaluate the existence of this principles in the framework proposed. The case shown the relationship between learning variables and the four principles considered.

*Key-words: organizational learning, health organization, learning process, hospital.*

## 1 INTRODUCTION

According to Davenport and Prusak (1998), one of the determining factors of company competitiveness is having and understanding information. Having information is useless, unless it is disseminated in the organization and shared among the individual who need it.

This is even true in hospital environments, where the adequate use of information has a direct impact on defined management and on the well-being of patients. And the characteristics of hospital institutions are the driving factor of this, for hospital institutions are constructed in an environment of great complexity, where people of different formations and functions act; moreover, many times there are processes not clearly defined.

The understanding of the learning process existing in the organization is considered one of the main factors for the improvement of quality of service, above all in the generation of tools and methodologies that support the decision-making process. In this sense, it is necessary to recognize ways to identify existing learning principles, especially in the area of hospitals. These ways may be defined as Design learning tools facilitators of a learning culture.

The present paper is the result of a study conducted in a public hospital institution aiming to identify existing learning tools.

## 2 ORGANIZATIONAL LEARNING AND HEALTH ORGANIZATIONS: PRACTICAL STUDIES

Vassalou (2001) describes an important study, aiming to map mechanisms of organizational learning. The study was constructed based on the model proposed by Goh (1997), in which five principles are considered essential to organizational learning:

- Mission and view
- Leadership
- Transference of knowledge
- Group work and cooperation
- Culture of experimentation
- Besides these principles, two organizational components are defined as essential to learning:
- Organizational structure
- Employees' competences and skills

Popper and Lipshitz (2000) conducted a comprehensive analysis of the variables of organizational

learning present in health institutions, starting from the concept of Organizational Learning Mechanisms (OLM). The OLM are spaces where individual experience is analyzed and shared between the members of the organization. In this qualitative study, the following OLM were identified:

Medical rounds.

Pre and post-surgery reflection – This process happens between doctors and represents a process of reflection in action (SCHÖN, 1983).

Clinical-anatomopathological meetings – Promoted to discuss wrong diagnoses revealed in the post-mortem period.

Conferences on morbidity and mortality – The patient's history are revised, and decisions taken are evaluated.

Video demonstrations

Review of medical records – Review of the effectiveness of a given treatment.

Periodic review – Review of statistical indicators of treatment effectiveness.

Team meetings.

According to Edmondson and Bohmer (2001), the mental model shared in the health environment considers the learning process as a structured activity, related to each individual, as individuals prepare to carry on their activities and, later, seek improvement in their clinical skills. The authors highlight that in order to expand the construction of organizational learning in companies of the health sector, the process of reflection, reinterpreted, and of refining and codification of knowledge should be performed by groups, not only by individuals alone.

### **3 MODEL PROPOSED FOR THE ANALYSIS OF THE PROCESS OF ORGANIZATIONAL LEARNING**

Based on the analysis done by the different authors who tackled organizational learning, we sought to infer some questions related to the process of construction of organizational learning. Among the elements identified, four principles may be pointed out for organizational learning in hospital environments, as follows:

- Learning processes (in terms of continuity)
- Transformation (based on change in attitude)
- Action (systematization of processes, learning to learn, conversion of knowledge)
- Creation and reflection to learning (from the viewpoint of innovation and awareness raising)

This model has a cyclic structure, according to the models described by Kolb (1997), Nonaka and Takeuchi (1997), Argyris and Schön (1996), Swieringa and Wierdsma (1992). Learning processes represent the principle that activates the cycle, allowing its transformation through changes in mental models and in the alignment of individuals with the organization, taking into consideration a facilitating structure for this process.

The dynamics for the consolidation takes place by means of experimentation in the action process, where individuals and groups will foment discussions and practical applications aiming at generalizations. The process of generalization will be consolidated based on the principle of creation and reflection. Thus, new practices, new knowledge, and new learning will be broaden and disseminated as a result of learning processes, both individual, in group, and in organizations.

### **4 RESULTS**

The hospital under study is a public company under private law. It was created with the mission of offering assistential services to the community of the state of Rio Grande do Sul.

The following system players were interviewed: an Administrative Vice-President; an Advisor of the Central Administration, two Advisors of the Central Administration, a Manager of the Infection Committee; a Doctor with a Management Position, and an IT Manager

#### Principle 1: Learning processes (LPs)

We observed the existence of formal physical spaces and of resources for the construction of learning projects. Although these spaces and resources are made available to the organization, there is a greater concentration on assistential activities. The process of generation of knowledge and experimentation is present in the organization, especially in the medical area. This process may be perceived formally (work groups, committees, and events defined by the hospital administration) or informally (discussions between doctors, medical specialty rounds, post-surgery analyses, etc.).

Moreover, there is a recent concern towards the development of employees' competences. However, the process of defining trainings and activities happens based on the gaps existing between what is expected from the roles played and employees' skills and competences. This process is centred in the organization. We could perceive that the hospital has a formal learning process. Design tools could improve the impact of informal learning processes transforming tacit knowledge in explicit knowledge.

#### Principle 2: Transformation of Learning

Interviewees pointed out that in the past there was a more sectorial culture, with a focus on the aims of each areas, without sharing views of processes. This culture is being modified in order to reach a strong integration between the medical, nursing, and administrative areas.

A culture of discussion and sharing of models was observed in the medical area. This process takes place through different processes, such as the discussion of clinical cases or the creation of service protocols. The ability to learn collectively is reinforced by sharing mental models, a factor that is quite present in the area of assistance but is still incipient in the managerial area of the organization.

An important issue identified in the organization is the concern about sharing tacit knowledge, both in the area of assistance and in the managerial area, manifested, for example, by the administrative vice-president, who turns to the development of internal leadership within the institution. This process has happened in the different areas, based on sharing of knowledge through experience.

Concepts of experience design are important in health services, but aren't used in this hospital. In this case, design tools could be used to facilitate sharing of knowledge through experience.

#### Principle 3: Action

The process of analysis and problem solution, especially collective problems, is emphasized in the assistential environment. This is recent in the hospital management and is related to the change that took place in administration. In this sense, there is a concern about involving leaderships. Interviewees perceive a clear relationship between discourse and practice in the high administration. However, the organization aims to minimize the gap between theory in use (practice) and exposed theory (discourse) at different managerial levels.

In this principle, design tools could be used to build an environment where protocols and action could be tested before real used. This could be done using prototyping or simulation techniques.

#### Principle 4: Creation and Reflection

As to the process of reflection, there was a strong presence of indicators both in the area of assistance and in the managerial area. Moreover, the process of internalization of knowledge clearly pervades assistential processes through practices, protocols, spaces for discussion, and systematization of learning.

In this point, designing learning tools could help in the process of internalization, using concepts of experience and service design.

### 5 DISCUSSION ON THE RESULTS OBTAINED

From the analysis of the interviews conducted, we sought to identify in the institution the existence of learning principles and variables under study. For this evaluation, we considered the area in which they could be identified: assistential or managerial.

The culture of discussion existing in the medical environment allows for structures of learning, even

formal ones, to bring significant results to the process of organizational learning. Among the elements analyzed, we could identify the existence of most of them when the focus is assistential. The variables present in the area of assistance are to a major extent related to the process of sharing and dissemination of knowledge.

In the managerial area, we observed the ability of structures to adapt to the process of change with greater emphasis, an alignment between individuals and the organization, and the ability to share mental models. Although these aspects have been considered important by interviewees, they are related to the recent change in the administration management. In this sense, they are still not totally present in the organization. The involvement of leaderships and the existence of indicators complement the list of learning variables pointed out in the area of management.

Most variables are related to the area of assistance. The variables with strong presence in the hospital, existing in both areas, are due to the process of decentralization of management. In both areas, the ability to both question rules and to generate insights that may change the way the company acts is present in the discourse of interviewees. The ability to perceive the whole and to share tacit knowledge, considering the explicitation of mental models is also a predominant element.

Even when present only in the area of assistance, learning variables in the organization are quite strong. This characteristic is positive for the institution, given that the focus is the activity-end.

It important perceives that many of the practices identified in assistential area are related to experience design. We could improve the hospital performance using design tools to promote and create a design-oriented culture. Many of the practices, like work groups, committees, discussions between doctors, medical specialty rounds, post-surgery analyses, etc. aren't designed. They occur day-by-day without a systematic analysis. In this case, design tools could help.

## 6 CONCLUSION

The present study aimed to present references for the evaluation of learning process and its application in a hospital institution. The theoretical evaluation allowed design learning tools for hospital institutions, taking into consideration the four principles proposed: Learning processes – related to the continuity of learning in the organization; Transformation – based on a change in attitude; Action –systematization of processes, learning to learn, conversion of knowledge, and the Creation and reflection for learning – considering the process of innovation and awareness raising.

Learning culture, which is related to “learning by doing” (CRABTREE, 2003) and the exchange of knowledge in different, mostly structured ways (LIPSHITZ and POPPER, 2000) are present in the area of assistance. This happens especially by the particular process of professional formation that exists in the area of health, in which, from the beginning, students carry out activities that focus learning based on the observation and comparative analysis of cases. This process is still incipient in the environment of hospital management, especially due to the culture of departments that exists in the organizations. While assistance values process and enables the flow of the patient in the organization, most management areas have a limited view of its space and do not perceive the whole of the organization. The fragmentation of the structure generates analyses focused on micro processes of departments.

Although, from the interviews conducted, the area of management did not demonstrate most of the existing variables of learning, some of these variables were considered to be present in the institution, independently from the focus of analysis (managerial or assistential). Among these variables, three are to be highlighted and are related to the principles of transformation, action, and reflection. The first is the construction of the shared view (transformation), which is directly related to a strong organizational culture. This ongoing culture allows the different system players to generate insights that may change the way the company acts (action). The processes resulting from these changes are continually revised through indicators of control (reflection).

Finally, the importance of understanding principles as elements, which on their turn become variables, essential to learning should be emphasized. Besides that, its important identifies design tools that could improve a hospital performance through a systematic analysis of assistential practices.

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