

## The community of practice in the education

S Ghimiş<sup>1</sup>

<sup>1</sup>Constantin Brancusi University of Targu Jiu

**E-mail:** ssghimisi@gmail.com

**Abstract:** A community of practice is a group of people who share a concern, a set of problems or a passion about a common topic, a passion for a professional or personal activity. Universities may be regarded as professional communities in which joint activities are carried out, with well-defined structures. Using networks at university level increases joint assembly of ideas held by each individual, while the exchange of ideas and practices inevitably may lead to the system enrichment, producing effectively loops of innovation and development.

**Keywords:** *community of practice, university, development*

### 1. Introduction

In a modern context, implementation of communities of practice was applied in Chrysler Company. Thus, until 1988, Chrysler Corporation was traditionally organized with directives from the top of the management structure. Being threatened by the Japanese companies' competition and being on the verge of bankruptcy, the company had to develop something innovative to stay on the market.

The solution was a formal community of practice composed of engineers from all divisions of the company in order to speed up the process of developing a new car model. The result was spectacular: from 5 years as the process of creating a new model last, they managed to release to the market a new model in just 2½ years. Communities of practice formed by Chrysler benefited from the already established relations between the same field engineers who met informally and discussed on what the other such teams were doing, what were the difficulties they were facing and how they overcame them.

IBM, Xerox, British Telecom and The World Bank are just a few of the organizations who understood the role that communities may have and they acted for their development.

Brown & Duguid (2000) [1] recounted that in the company Xerox, the technicians that had repaired the machinery started to exchange suggestions and tricks for solving problems. They did it through informal sessions of lunch breaks. The company had admitted that the value of these interactions had created project Eureka in order to encourage that these interactions to be shared in a general way, to all the technicians. It is estimated that project Eureka brought over 100 million dollars in economies.

A community of practice is a group of people who share a concern, a set of problems or a passion about a common topic, a passion for a professional or personal activity. Community consolidates its knowledge in a particular field through continuous interaction of its members. Examples of communities of practice in the online environment – virtual worlds: Second Life, Entropia Universe; –

providing information: Blogs, Google Docs, forums, Wikis; – networks: YouTube, LinkedIn, Facebook.

E. Wenger, R. McDermott and W. Snyder (2002)[2] in "Cultivating Communities of Practice" present communities of practice as "groups of people with common interests who meet regularly or not, in formal or informal manner, and discuss on the field which unites them, share experiences, tips and information and, in some cases, study in detail and thoroughly this information for future reference".

The members of the communities can work in different scenarios, but when they meet, they realize that their interactions are valuable, because they can share new information's, new understandings, their needs, aspirations and enhancement suggestions. According to Smith, Hayes & Shea (2017) [3] the practice community is one of the most important conceptions regarding social education. The theoretical framework of the communities offered a conceptual direction for the learning environment, which are searching for professional development.

## **2.Principles for communities of practice development**

Wenger, E. shows the seven basic principles for communities of practice nurturing, principles that can help us to be more flexible and to understand their needs.

### ➤ **Design as progressive structure**

Communities of practice must be designed as natural progressive structures, usually on relationships structures already existing. The mission of the coordinators and key members of the community is to think new ways of capturing the interest of members, to attract new members with new ideas and new areas of interest in order to build new relationships within the community. The new members may have related interests also in other areas so they can determinate the community of practice to evolve towards other areas of interest too.

### ➤ **Openness to dialogue between interior and exterior**

Dialogue is the solution for an efficient community of practice, this because only through dialogue it can form a clear picture of problems. However, there may be difficulties in encouraging dialogue within the community because people do not know how open they should be, they are afraid of dialogue and of how this could affect their inner balance.

### ➤ **Invitation to the different levels of participation**

Within the community of practice can be identified three main levels of participation and a secondary group outside the community. The first is the *Central* group; it ensures the community functioning, being involved in discussions, identifying community problems, solving its problems and it comprises 10-15% of the community members. From here the leaders are chosen. The next group is the one called *Active*; it comprises 15-20% of the members; they occasionally participate in debates and forums. Then, there is the group called *Peripheral* which rarely participates in events and sits on the sidelines observing the interactions of the first two groups. Finally, there are the *Outsiders* that gravitates around them; they are outside the community; they are not members, but they are interested in community life. Community members can move from one group to another, sometimes staying active for a period and then they may lose interest or, alternatively, they may get involved in more heated debate and move to a higher level of interest.

### ➤ **Development of both inside and outside space of the community**

For effective functioning of a community, it is necessary to create a space for public interaction, venue, debate sessions, meetings, where as many community members as possible can come, but also private spaces where its members can meet face to face. Communities focusing on geographical point of view is very important because they can not operate dispersed. It must not insist too much on the public events on the expense of private events in which members express their problems and where they are being placed in relation with useful resources located both inside and outside the community.

### ➤ **Focus on value**

It is essential to attract more and more valuable members, experienced in the field, who give weight to the community and provide innovative contribution. The value results mostly from the activities and

daily interactions of community members. Small achievements from the beginning give confidence to community members and provides moral comfort to achieve major breakthroughs. Communities thrive through innovation, through the contribution value brought to the community, groups of individuals and teams that are part of them.

➤ **Combining the familiarity with interest**

Giving participants a familiar environment, an environment that makes them feel comfortable and invites them to take part in discussions and other activities, to seek advice and share opinions is the key to a successful community. It can combine both familiarity and interest for the new which make the members to connect fully in community life.

➤ **Create a community rhythm**

To ensure continuity and maintain an active community, it is necessary to impose a certain rhythm in its activity, rhythm which is achieved through sessions, meetings, informal activities, tasks, deadlines. It is very difficult to create a rhythm of community because each community member has a specific rhythm imposed by other communities to which he belongs (family, job, friends, sports). If it's too fast, people feel overwhelmed and leave the community. The community rhythm is the best indicator of community of practice's life because this rhythm moves people and keeps their keen interest for the community.

Developing knowledge through communities of practice can be carried out, in the opinion of E. Wenger, in seven steps[4]:

1. Understanding the strategic needs of knowledge: what knowledge is essential for success?
2. Identifying practical fields (finding communities): where will people form communities around the practices in which they can engage and with which they can identify?
3. Developing communities: how to help key communities to reach their full potential?
4. Expanding borders: how to engage and transform communities into broader learning systems?
5. Encouraging the sense of belonging: how to stimulate such a feeling?
6. Running business: how to integrate communities of practice in organization business management?
7. Application, evaluation, reflection and renewal: how to develop a strategy of knowledge through waves of organizational transformation?

To support knowledge, we must focus on the community that owns it and the people who use it, not on knowledge itself (McDermott). In building a community, we can speak about four challenges:

- technical challenge (human and informational systems design that not only make information available, but also helps community members to think together);
- social challenge (developing communities that share knowledge and yet retain enough diversity to encourage thinking rather than copying);
- managerial challenge (create an environment that really appreciates the sharing of knowledge);
- personal challenge (to be open to the ideas of others, willing to share ideas and maintain our thirst for new knowledge).

### **3. Communities of practice in the university education technical system**

Improving educational systems can be achieved through networks consisting of universities and professionals from education field. These networks can be formed by professionals from the same university, from different universities, from educational and social services in the same locality or different localities, in collaboration with educational, professional administrations and different communities.

In Era of knowledge, the ability to recognize patterns, to share ideas with communities of interest and the opportunity to grow personally through a set of relationships is how an individual integrates and develops (Poley, 2002)[5]. Continuous changes at organizational and didactic level, produced within educational system reveals the need to promote the exchange of knowledge between

professionals, the ultimate goal being the one of improving the efficiency of the educational process of students.

Internal collaboration at the university level carried out regularly in departments, research centers or faculties is already a routine activity. However, these types of collaboration and networking are limited processes and circumscribed at teachers individual level, with poor participation of other agents, such as students or other external institutions.[6]

Communities of practice are learning forums where members teach and learn from each other and, irrespective of their position within an organization, regard each other as fellow practitioners, teachers, colleagues and sources of knowledge.

In this respect, promoting activities and community projects, promoting courses conducted by involving various agents may lead to increasing knowledge and sharing responsibility and participation of multidisciplinary teams of teachers, students, representatives of other institutions or community, and also of schools in the case of education sciences.

There are enough examples of collaboration within the educational system, so collaboration between schools and universities in the implementation of projects is commonplace, creation of university consortia bringing together universities around common mission is already accomplished.

We can consider universities as professional communities in which joint activities are developed, with well-defined structures. Universities isolation can be overcome by strengthening collaboration processes that not only provides a powerful framework for professional exchanges, but also mutual support to overcome the problems that arise in teaching and learning processes. Using networks at universities level increases joint assembly of ideas held by each individual, and the exchange of ideas or practices may inevitably lead to system enrichment, producing effectively loops of innovation and development.

As shown, communities of practice are made up of people who are part of a collective learning process, in a shared field of human activity. A community is a group of people, at work or leisure, whose identity is defined in large part by developing roles and relationships and who share group work. An important role in organizing communities of practice has the legitimate peripheral participation (Wenger, 1991) and this requires transferring knowledge and skills across groups using various forms of guidance, implicit learning and active participation in the community. Legitimate peripheral participation is the way to achieve the relations between new and old members and also the relationships between activities, identities and communities of knowledge and practice. As the development continues, community members are moving from peripheral participation to full participation.

A practice community is developed when it “adds value to the organization, to the team and each one of the participants” (Wenger and Colab 2002); even so, the development is not expected to be smooth and uncomplicated. Conflicts must often be overcome and in front of difficulties you must persevere. The creation of practice communities is a necessary challenge, which every education professional person must assume, the ones that are dedicated to the preparation of the teaching staff, because through them you can on one hand transfer and generate new knowledge and on the other hand realize the best practices in the area of researching and teaching ( Bozu și Muñoz 2009) [7].

A practice community has the potential to transform a profession characterized through individualism and professional isolation, which prevents schools as organizations to learn. In these cases, capable and experimented professors exist and other with incipient or weak teaching abilities, without the knowledge being shared or without adding to the whole.

Practice communities work around the problems, in order to better understand them and to develop solution strategies through interaction. In addition, it generates planning, programs, and evaluation systems or simply just a silence deal, which they share împărtășesc (Wenger și Colab., 2002).

In a practice community all professors which want to learn from the expertise of their fellow man and to share their experiences participate, with the goal to enhance the studying of their student. The participation to a practice community is differentiated. Not all members of the community participate with the same level of implication, there will be central members which coordinates and organizes the

actives, central members which contribute with experience and their capacity to analyses and periphery members, which are of small participation, In the beginning, the ones who join a community study in the periphery, that means that they don't have a central role in the activities of the community.

This is conceptual knows as: legitimate implication of the peripheral. [8] As they become more and more competent, they implicate themselves more in the community and go to a full participation (Lave & Wenger, 1991), so as the teaching is not conceived as gaining knowledge by the individual but as a process of social participation.

A common element of successful community practices is the leadership of the central members because they identify the basic problems which will work on, and they assume the responsibility for maintaining the vitality and efficiency of the community. They are the ones who are responsible for the level of participation of the rest of the members and play an important role in moderating and regulating the reunions. In addition, the leaders handle the relationships between the practice community and the formal organization, including the communication of what the community produces, not only for the organization but also for their members (Baker & Beames, 2016).[9]

The functioning of any community of practice depends on the following facilitators (Milton, 2005[10]):

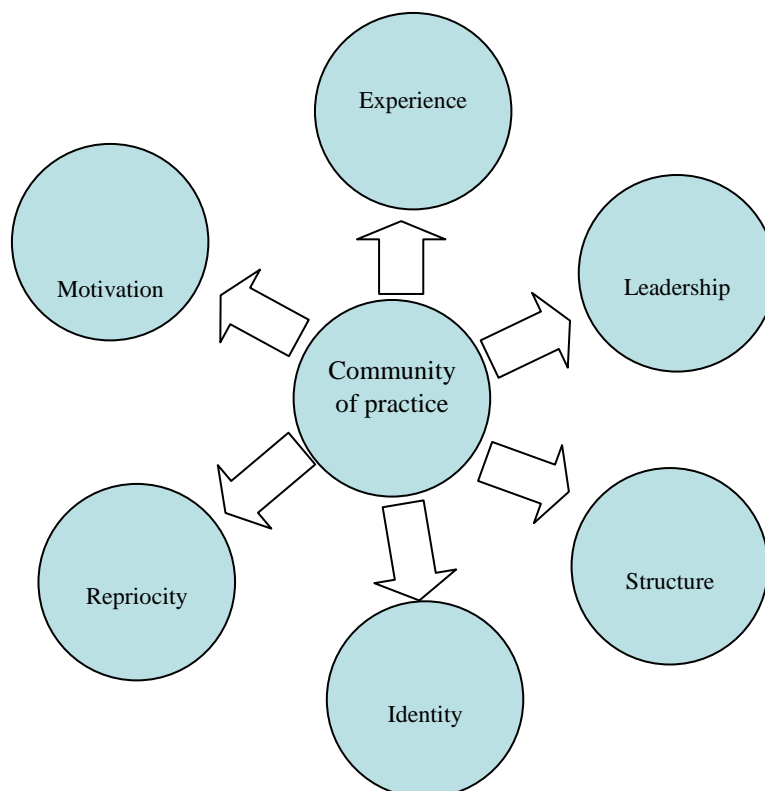
- Institutional changes that facilitate the development;
- Promoting necessary technical innovations and tools facilitating to foster modern and flexible contexts;
- Open participation and horizontal structures of functioning;
- Teamwork;
- A properly coordinator;
- Participation of experts of recognized prestige;
- An initial meeting to establish common goals and directions for action;
- Appropriate degree of autonomy for characteristics and functions;
- Alignment with organizational strategy.
- Specialized structures of communication, interaction and storing common knowledge;
- Regular and frequent interaction;
- Task orientation and clear deadlines;
- Shared interest, desire and motivation;
- Good use of technology;

The community of practice is not a scientific community, it does not deal with science but with the practice derived from knowledge and with the management of this knowledge creation process. This process is achieved in a collaborative form and through a continuous process of establishing strategies of participation, leadership, identity and use or mobilization of knowledge.

A relational structure of a community of practice is shown in Figure 1.[11]

The type of relationships established between a community of practice and an organization can be very varied and can range from absolute lack of recognition of the community of practice to understanding the community of practice as an absolutely necessary part of the organization.

Although the communities of practice don't have a hierarchical structure, does not mean that all members have the same position. There are differences of power that may conditionate the internal dynamics of the community of practice. The community of practice helps interaction and knowledge sharing, but bad management can lead to a flawed implementation of innovative processes.



**Figure 1.** The Structure relationship of the community of practice

#### **4. Development of communities of practice**

In developing a Practice Community, we must take into account the following elements:

- Creating professional development opportunities. The practice community must be based on the promotion of authentic knowledge, and it must be based on a strong institutional policy;
- Creating learning-based learning opportunities. Learning is effective if it is based on experimental learning, practice, and solving concrete problems;
- Using self-evaluation as a learning resource. Forming self-assessment skills is essential in the development of practice communities;
- Transfer of learning and knowledge building. Learning in a community of practice involves analytical and reflexive processes as well as knowledge creation through knowledge among peers.

The management of practice communities must take into account:

- An efficient leadership
- Creating a culture of learning
- Providing learning at all levels
- Use of distributed leadership
- Coordination of professional development

The establishment of a strong community of practice in a university must also take into account the external factors of the university. Therefore, collaboration mechanisms between the university and external agencies should be promoted and developed: transfer, assessment and construction of knowledge.

In order to substantiate a community of solid practice, it is necessary to create sustainable relationships with various partners, including through the involvement of students, student associations, Alumni associations, community members, research centers, social services, industry or the business community.

The university's external context can influence the ability to create and support the Practice Community in an effective way. Such external influences can be considered: educational policies and their stability, institutional policy oriented towards the effective involvement of members of the academic community and transparency in decision-making to anticipate the activities of teachers.

But personal involvement is fundamental in creating and developing communities of practice. Professional communities operate as small groups, and universities have well-defined structural units that work in the form of departments or research centers and which must be involved in promoting the Communities of Practice.

Universities' leadership must provide mechanisms to ensure the Community's sustainability of practice by stimulating the interest of the participants, maintaining the incentives for change and motivating community members to practice.

The first Practice Communities at Constantin Brancusi University in Târgu Jiu have been established since 2015. Three communities of practice, a Community for Legal Sciences, a Community for Accountancy and a Community for Business Administration have been set up. The establishment of the three communities of practice was possible with the help of POSDRU ID 140930 "Improvement of university study programs in the fields of Business Administration, Accounting and Legal Sciences by consulting Alumni".

Each community was made up of 15 members and enrolled students from each year of study both from undergraduate and master students. Planned meetings were held, attended by members of the community of practice and invitations: community practitioners. Among the results of the activity in the practice community were:

- Improvement of university study programs and adaptation of the university curriculum by consulting the graduates, with long-term positive effects on the correlation of the university curriculum with the needs of the labor market;
- Strengthening cooperation between the university and the business environment through alumni for better correlation of higher education with the labor market;
- increase the involvement of the business community in the activities and processes of defining the competences and the programs of university studies;
- increasing the communication between universities, students and employers, - developing a platform for the management of the communication process between the academic environment - students - graduates - employers;
- improving students' practice - a more focused and multidisciplinary strategic plan;
- developing and implementing more efficient, coordinated communication with alumni;
- developing and implementing a marketing plan that focuses on mutual expectations and benefits - university-alumni.

Starting with 2017, the Industrial Engineering Practice Community was established on the previous model, comprising students from the Machine Building Technology and Masters degree from the Manufacturing Quality Management Program. There have been meetings with specialists from the field, working in the Oltenia Region companies, and among the obtained results: improvement of the study program, improvement of the students' practice, increasing the employers' interest in the competences obtained by the graduates of the University

Communities of practice have been established at Constantin Brâncuși University of Targu Jiu as a strategy for promoting best practice in learning and teaching in the area of engaging disciplines by fostering interdisciplinary approaches to curriculum design and development.

In cultivating interdisciplinary at Constantin Brancusi University of Targu Jiu, communities of practice may focus on one or more of the following priorities:

- **Problem solving** Most communities of practice have an element of problem solving within their sphere of practice. A community brings together expertise from a variety of sources to focus on solving a common problem, thus providing benefits to members and their elements.
- **Knowledge creation and sharing.** One of the main tasks of communities of practice is to develop new knowledge that will improve the quality of learning and teaching at University.

A knowledge development community may decide to focus on finding, collating, organising and distributing the knowledge that their members use every day. This involves the community in organising shared information processes and focusing on filling knowledge gaps.

- **Best Practice.** A community of practice focuses on developing, validating and disseminating best practice and may have as one of its projects the documentation and dissemination of such practice.
- **Innovation.** Communities of practice may be based around issues of common interest to professional peer groups, with a focus on new and emerging areas of knowledge where there may be the opportunity to innovate. These groups can provide the basis for rapid dissemination of new ideas and resources.

## 5. Conclusions

Communities of practice are formed by people who are part of a collective learning process in a common field of activity. Promoting activities and community projects, promoting courses conducted by involving various agents may lead to increasing knowledge and sharing responsibility and participation of multidisciplinary teams of teachers, students, representatives of other institutions or community, and also of schools in the case of education sciences.

We can consider networks as types of organizational structure based on interaction without having a central point or predetermined sequences, but allowing non-sequential development of functions in an organization.

The community of practice is not a scientific community, it does not deal with science but with practice derived from knowledge.

The community of practice helps interaction and knowledge sharing, but an incorrect implementation can lead to failure.

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