

A Conceptual Model of Organizational Learning Educational Environment Empowering Student Individual and Collective Learning

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Abstract. Changing society needs implement a change in working environments. New management styles and complexity of tasks require employees to apply new skills and competences, as well as foster continuing work place learning. Thus, universities should prepare students for complex and collective decision making in workplaces. Study process should contain not only specific subject content, but also create educational environments that develop collaborative work, problem solving and organizational learning competences. This paper aims to create a theoretical model of organizational learning educational environment empowering student individual and collective learning. This kind of educational environment should empower students to apply organizational learning in study process, creating real-life-like environments. Model created merging higher education didactics, knowledge management, work place learning and social psychology theoretical knowledge.

1. Introduction

In management literature it is recognized that organizational activities are embedded in complex systems that are highly integrated in external environment. Thus, all the decisions that organizations make require a complex and responsible understanding. Yet, a single person cannot hold the full understanding of all the issues that need to be considered while solving complex problems. It is necessary to combine different sources of information and integrate knowledge from different fields of knowledge to navigate social–ecological–economical systems [1]. On the other hand, the ever-changing nature of environment demands continuous reality-checks and critical thinking [2]. Individual managers as well as organizations and institutions need to be flexible and attentive enough to adapt to slow and rapid changes in a process of learning-by-doing [3]. Thus, learning across various sectors and within organizations is emphasized as a best way of bridging scientific and experiential knowledge.

For some years, higher education has been refashioned in the image of business with a growing emphasis on knowledge exchange, knowledge innovation, knowledge transfer and partnership working with the private sector [3]. Yet, there are vast amount of complains that universities do not prepare students for real work environments. Thus universities have to fulfill their mission – to prapare specialists for complicated decision making process that would be prepared to act in complex workplaces and promote organizational learning all the time [2]. Scholars note that graduates face continuous changes in the labor market, thus generic and reflective competences in particular that benefit graduates in the long term and that render them more employability. [4] Whether graduates have such generic and reflective competences at the end of their studies depends partly on the way in

which these competences were stimulated during their education. The type of learning environment and instructional method play an important role in this. In fact, learning environments that focus not only on occupation-specific competences, but also on generic and reflective competences are expected to prepare students better for a changing labor market than studies in which students had few incentives in the field of generic and reflective competences.

To foster more generic and reflective competences there is a need to change university curriculum from knowledge oriented teaching to more innovative, competence based learning. Yet, most scholars agree that there is surprisingly little knowledge about designing it [5]. In order to develop generic competences some scholar literature focus only on collaborative learning, problem-based or project-based learning design. But in real life organizational learning is more complex and requires various types of learning skills. So in a scholar literature there is a lack of clear concept how university educational environment should be designed to enhance student organizational learning similar to real-life learning in workplaces.

This article aims to provide a concept of university educational environment which empower student individual and collective learning through organizational learning. Organizational learning conceptualized as all forms or learning activities that are meaningful and fostered by organizations and provides knowledge actual for organization purposes. To reveal the concept of organizational learning educational environment, external and internal factors were grounded using systematical scholar literature analysis. Literature from higher education didactics, knowledge management, work place learning and social psychology were analyzed.

2. A Need for Organizational Learning

There is no one united definition on what organizational learning is. This lack of definition may be influenced by variety of disciplines that analyses organizational learning. Knowledge management conceptualizes organizational learning as knowledge creation process that helps organizations to acquire necessary knowledge. Human resource discipline defines organizational learning as human resource development processes. Management stresses out a competitive advantage that organizational learning creates. Meanwhile educational sciences focus on individual learning processes in workplaces, social psychology analyses collective processes and individual behavior related to learning.

This article defines organizational learning as process by which organizations develop rules, procedures, and routines for solving recurring problems [6] and expanding organizational understanding [7] in order to achieve organization goals. This definition is most acceptable stressing out the role of organizational learning in changing business environments and complex decision making. Scholar literature reveals that organizational learning help organizations to adapt to changing environments and create competitive advantage. Learning can be observed in all work activities, no matter if it is new product creation or old activities reflection. But most beneficial learning appears when organization meets non typical and non-routine situations. These kinds of situations require generating knowledge that organization didn't have before and leads to changed organization behavior (see Fig. 1).

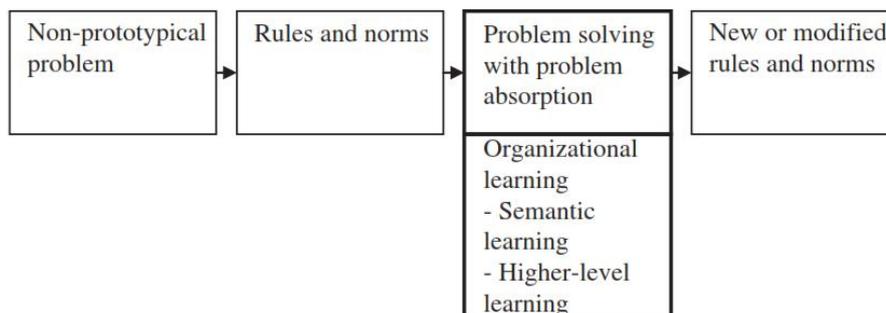


Fig. 1. Organizational learning through problem absorption [6, p. 311]

It is important to stress out that organizational learning is embedded in organization activities and requires more systematic view. It is a main difference comparing organizational learning with training. Trainings should be understood as a part of organizational learning. A research has also found that only 20 percent of employees learn from conventional training programs, while 80 percent through informal means [8]. A key discovery is that employees often engage in personal strategies to handle daily tasks and challenges.

| Training | Learning |
|---|---|
| From the outside in, done by others | From the inside out, learner motivated |
| Assumes relative stability | Assumes continuous change |
| Focuses on knowledge, skills, ability, and job performance | Focuses on values, attitudes, innovation, and outcomes |
| Appropriate for developing basic competencies | Helps organizations and individuals learn how to learn and create novel solutions |
| Emphasizes improvement | Emphasizes breakthrough (metanoia) |
| Not necessarily linked to organization's mission and strategies | Directly aligned with organization's vision and requirements for success |
| Structured learning experiences with short-term focus | Formal and informal, long-term future oriented, learner initiated |

Fig. 2. Organizational Learning vs. Training [9, p. 52]

So in concept of organizational learning it is important to understand that learning must take place almost as a byproduct of working, in contrast acquiring knowledge before performing a particular task on job. In today's environment, organizational learning represents new form of learning in following ways:

- It is performance based and tied to business objectives;
- It emphasizes the importance of learning processes or learning how to learn
- The ability to define learning s as important as finding answers specific questions.
- Organization-wide opportunities exist to develop knowledge, skills, and attitudes.
- Learning is a part of everybody's job [9, p. 31].

The other difference that defines organizational learning is its collective learning ability. Trainings usually offer individual work related knowledge which does not necessary lead to collective understanding on the topic. Collective understanding is necessary in order to achieve organization goals. Organizations work as systems thus there is a need to have a common understanding on what needs to be done to achieve organization goals.

Reflection is a key to create common understanding, which is an outcome of the collective learning process. Scholars found, that it is very useful to distinguish different variants of collective learning, because the collective ones especially are difficult for people to conceptualize. They think, for instance, that they are learning collectively when they are involved in teamwork or a network. When this occurs, people fail to organize the possible, more explicit collective outcomes. For example, sustainable development problems are solved in team work, but there is no clear understanding what needs to be done and decisions are not integrated into all spheres of interest. Sometimes learning processes are collective, but the learning outcomes may be only individual ones. In other cases, however, actual or intended outcomes of learning (in terms of learning and/or in terms of changes in work processes or outcomes) are collective (see Fig. 3).

| | | |
|-------------------------|--------------------------------|--|
| Outcomes / Processes | Individual | Collective |
| Individual | Individual learning | Individual learning processes with collective outcomes |
| Collective | Learning in social interaction | Collective learning |

Fig. 3. Different types of collective learning [10, p. 16]

Figure 3 shows the four possibilities, of learning process and it outcomes. Individual outcomes can become collective outcomes in some certain actions:

- when groups or organizations reflect upon the common implicit outcomes of learning;
- when they reflect on or plan common explicit learning outcomes;
- when they define common plans for externalization in the group or the organization.

So it is very important, that organization decision makers would have enough competences to organize decision making process to achieve collective learning outcomes – common understanding. These competences may be acquired in universities, preparing students (as future specialists) for collective learning for complex decision-making in university educational environments.

So concluding the literature mentioned above, it is obvious that organizational learning require individual and collective learning skills. Organizations are social systems and organization members have to know how to learn individually and how to share knowledge to reach common understanding. Thus organizational learning environments are unique in its dual nature and require more skills than just personal proficiency in some subject.

There are five key skills are needed for initiating and maximizing organizational learning. [9, p. 52]:

- System thinking represents a conceptual framework with which to make full patterns clearer and determinate how to change them effectively.
- Mental models are the deeply ingrained assumption that influences our views of and actions in the world. For example, mental model or image of learning, work, or patriotism influences our interactions and behavior in specific situations that pertain to those concepts.
- Personal mastery indicates a high level of proficiency in a subject or skill area. It requires a commitment to lifelong learning that leads to expertise or exceptional, enjoyable proficiency in our organizational tasks and responsibilities.
- Self-directed learning means that everyone is aware if and enthusiastically accept responsibility for being a learner. Elements of self-directed learning include knowing your own learning style, being able to assess our needs and competence, and connecting business objectives to learning needs.
- Dialogue denotes a high level of listening and communication between people. It requires the free and creative exploration of subtle issues and the ability to listen deeply to another person while suspending our own views. The discipline of dialogue involves learning to recognize the patters of team interaction that may promote or undermine learning. For example, patters of defensiveness are often deeply integrated, they undermine learning, but when recognized and surfaced creatively, they can actually accelerate learning. Dialogue is the critical medium for connecting, inventing, and coordinating learning action in the workplace.

It is obvious that universities have to focus on those skills development in study processes to prepare students for future workplaces and complex decision making. Further on a concept of

organizational learning educational environment empowering student individual and collective learning is analyzed.

3. A concept of Organizational Learning Educational Environment Empowering Student Individual and Collective Learning

University educational environment is impacted by the external and internal managerial factors that aid in helping to achieve educational goals by utilizing the necessary human, material, and other resources. External factors include the education policies of higher education in the country that in turn condition the rest of the internal managerial factors, such as the work of universities [11].

Internal managerial factors include: a university, study program and a module, educators and learners [12]. Universities depend on the educational policy of the country and the latter is impacted by the economic, cultural, and political circumstances and conditions of the country. Democratic context, economic perspectives, and cultural characteristics may condition the performance of a university.

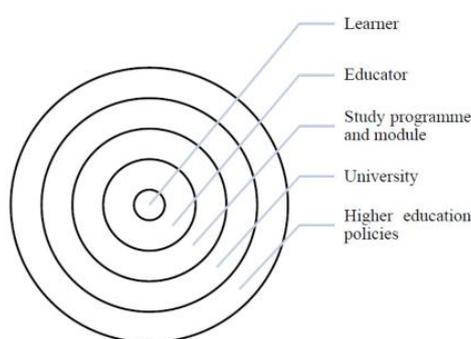


Fig. 4. Managerial Factors Conditioning University Educational Environment [11]

In this article two types of factors were distinguished: external (higher education policies, university, study program and module) and internal (learner and educator, educational processes). These groups of factors will be analysed further on.

3.1 Organizational Learning Educational Environment External Factors

The One of the most general managerial factors is higher education policy. Usually policy is defined in national level, supported by education strategies and bureaucracy mechanisms defining study program construction. Policies depend on country culture, politics and other national social peculiarities. Looking at country culture in a very broad perspective scholars claim that organizational learning is most fostered in countries where (measuring in Hofstede (1980) cultural dimensions) there is;

- Low power distance dimension (liberal relationships, hierarchical positions and subordination is not so important in discussion),
- Low uncertainty avoidance level (high tolerance of risk, low level of bureaucracy boundaries),
- High level of collectivism (persons prefer collective work than individual efforts),
- High level of femininity (low level of competition, more focus on consensus) [7].

Other very important factor that influences national higher education policy is educational paradigm in which country focus. In scholar literature there are many ways to structure the shift of learning from content oriented to competences oriented learning. Some scholars concentrate on content/competence bipolar systems, some concentrate to teaching and learning shift – a change from teaching (you learn when I teach) to learning (a person can learn anywhere, not only in educational environment), some call it limiting and expansive orientations. In this article an opposite between eduecentric (oriented only on teaching) to empowerment (oriented to empower individual for self-directed learning) is provided (see Fig. 5).

| From a Limiting Reformer Orientation/Educentric Paradigm | To an Expansive Transformer Orientation/Empowerment Paradigm |
|--|--|
| In-the-box viewpoint | Outside-the-box viewpoint |
| Content-focused learning | Inner-focused learning |
| Disciplinary curriculum | Trans-disciplinary curriculum |
| Rational/logical thinking | Divergent/lateral thinking |
| Teacher-initiated/classroom-based learning | Learner-initiated/life experience learning |
| Graded structure and learning opportunities | Nongraded structure and learning opportunities |
| Academic achievement and advancement | Personal development and maturity |
| Transmission of accepted knowledge and understandings | Exploration of unique insights and possibilities |
| External expectations, control, and rewards | Internal motivation, control, and fulfillment |
| Premium on IQ learning | Focus on EQ development |
| Competitive organizational ethic | Collaborative organizational ethic |
| Quantitative measures of success | Qualitative measures of development |
| Closed-system thinking and operations | Open-system thinking and operations |
| Scheduled learning opportunities | Flexible learning opportunities |
| Getting right answers | Asking deeper questions |
| Adults as control and evaluation agents | Adults as learning and performance role models |

Fig. 5. Paradigm Shift From Educentric To Empowering [13, p. 15]

A paradigm in which study program is constructed has a huge influence on organizational learning fostering, because it defines philosophical approach of studies. It is impossible to achieve effective knowledge sharing and collaboration if study program is based on very strictly defined educentric paradigm and does not foster collaborative work between students. Scholars notice that whereas mainstream educational philosophy and practices tends to promote individual knowledge and growth, meanwhile organizational learning requires collective and emancipatory action [19]. Values of competition and individualism in higher education should be replaced by cooperation and teamwork. The problem is that old paradigm culture of higher education encourages students to “fly solo” whereas most workplace organizations expect their employees to “fly in formation” [14]. Thus there is a need of study programs that foster collaboration between students.

As a managerial factor, a study program that permits creation and maintenance of collaborative program should be grounded on the modern learning paradigm. Thus, collaborative learning should be noted as one of the aims. In addition, methods, outcomes, and assessment should also integrate the aspects of collaborative learning [15]. Besides organizational learning skills can be gained only in those programs where problem-based learning or project oriented learning are practiced [16, p. 336] and students are frequently stimulated to use the mix of general and reflective competences in an occupation-specific context [17]. It is stated that study programs where learners work collaboratively on actual (or simulated) real-life problems are good examples of forms of collaboration between education and working life [18, p. 372]. However it is clear that designs of educational environments can be specified by study program or module, but there is always a hidden curriculum that appears. So only some of curriculum can be specified and some of it will always be kept emergent. The emergent elements of a design will gradually emerge in the course of joint interaction during learning activities [18] p. 373]. Researches show that emerging curriculum conditions in general appeared to be very

important for the acquisition of competences. [4]. Thus internal educational environment factors appear to be more influential on organizational learning educational environment formation.

3.2 Organizational Learning Educational Environment Internal Factors

As stated in previous sections, organizational learning integrated in employee everyday work activities. Thus organizational learning environment should empower learning content related specific activities plus empower active individual and collective organizational learning. This complex could provide specific professional competences and generic competences required for real life work. This type of educational environment should be based on active learning. Some scholars even suggest term „activating learning environment“, is that the active way in which students structure and organize their knowledge by solving problems and applying knowledge to cases, does result in a better recall and understanding of the subject matter and, because they are experienced to apply theoretical knowledge to solve cases, students are better able to apply this knowledge in practice. [16, p. 337-338]. Examples of activating learning environments are problem-based learning and project-oriented learning. In both types of education, students gain concrete experience with learning independently, working together in groups, and approaching problems systematically. In these student-oriented activating types of learning, students are able to observe and reflect both themselves and others, and are able to apply theory into practice [17].

But organizing organizational learning educational environment only as a problem-based learning system is not enough. With face-to-face collaborative activities, we must consider not only the actual task involved but also the social interaction dimension described as ‘the work of working together’ [19]. Collaboration in educational environment can be conceived as a two-dimensional problem, defining it as a dual-problem space: a content space consisting of the problem to be solved and a relational space comprising the interactional challenges and opportunities [20]. Like in real organizations, same in organizational educational environments it is important that organization members would learn collectively, because projects typically comprise a mix of individuals belonging to functionally different worldviews; it is difficult in practice to establish shared understandings [6]. Thus it is not enough to form a group of students. It is important to empower them to form a team.

There are three main differences between a group and a team. Firstly, teams display higher levels of collaboration and harmony. They are we-oriented. Secondly, teams are comprised of members that possess a greater variety of competences and skills, and these members complement each other. Thirdly, teams maintain a very strong identity. Members identify themselves with a team and its main mission. Therefore, a team is a collection of individuals who possess sets of different competences and skills, which have a mutual goal, mutual objectives, and shared performance methodology, and they all hold themselves mutually accountable [21]. Those student qualities are very important for organizational learning to take place.

There are some conditions necessary for the formed group to become a team:

- Optimal size of the group – five to seven members; a group should possess autonomy and be independent from any type of authority;
- Social identity – an individual identifies herself/himself with the entire group through a specific aspect, such as: study program, project topic, collection of knowledge, skills, and abilities;
- Sustainability – the shared goal and mutual result motivates working together; combination of a group – homogenous or heterogeneous group (depending on the goal of the task), however, in most cases for the group to become a team such preconditions as the heterogeneous group targeting the task process and its result with members of high diversity are required;
- Microclimate – overall safety;
- Personal traits are mentioned – the so called big-five: openness to experience (preference for novelty and experience); conscientiousness (dutiful behavior); extraversion (sociability and

assertiveness); agreeableness (act compassionately and collaboratively); and neuroticism (be emotionally stable) [22].

But students usually are not prepared to work in self-directed way in such kind of educational environments. Thus there is a need to empower them with team work and problems based learning skills and scaffold their learning. There are some ways to scaffold student organizational learning:

- Giving student ownership;
- Involving in problem solving in real world situations;
- Encouraging students to formulate solutions on incomplete and dubious data;
- Providing students with role models [23), p. 694].

Further on these elements will be mentioned in a conceptual model of organizational learning educational environment empowering student individual and collective learning in university studies.

3.3 Organizational Learning Educational Environment Internal Factors

Summarizing the literature analyzed above a conceptual model of organizational learning educational environment empowering student individual and collective learning can be created. Model unites internal and external factors that influence student organizational learning in university educational environment.

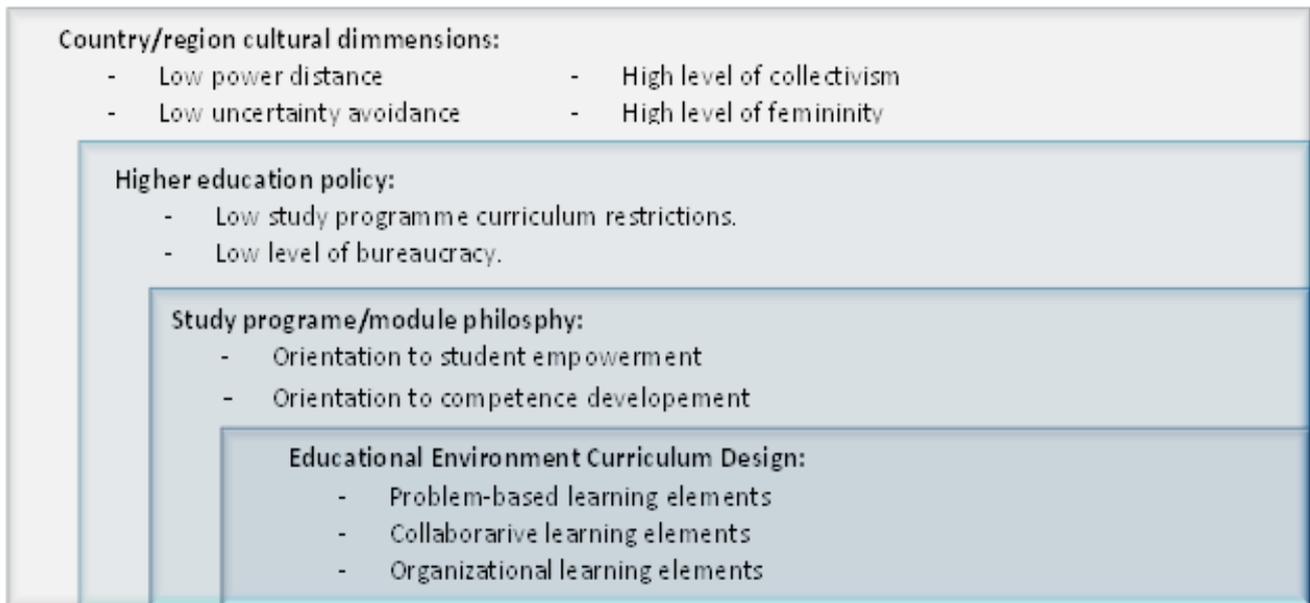


Fig. 6. Concept of Organizational Learning educational Environment

Educators who want to form organizational learning environment empowering student individual and collective learning in university studies should take into consideration country culture, because it influence student attitudes to organizational learning in educational environment. In different cultural settings there might be needed extra activities to empower student organizational learning. For example in individualistic culture there will be extra collaboration activities needed to empower students for efficient collective learning.

Due to low controllable nature of collaborative interaction activities, study program should allow some space for interpretation and undefined hidden curriculum. Thus low level of bureaucracy and loosely defined learning outcomes would help to empower more favor climate for organizational learning educational environment formation. Same as study program philosophical background should provide scaffold for organizational learning educational environment curriculum design. Expected learning outcomes should be specific and generic competences developed and learning process based on student empowerment.

Educational environment curriculum design should merge elements of problem-based learning, collaborative learning elements and organizational learning elements. Students should work and identify themselves as small organizations, working on real life problems, applying and developing professional knowledge in collaborative activities to achieve common goals and understanding.

4. Conclusions

In organizations now days there is a high level of complexity and fast changing environment which require making complex decisions and constantly learn from unusual situations. Thus organizational learning becomes crucial for every organization as a way to adapt changes and create competitive advantage. Yet, it is also very important that organization members would learn collectively not only individually. Collective learning should lead organization members to common understanding how to reach organization goal. But not all professionals are prepared to work collaboratively for collective learning purposes. Thus universities have to fulfill their mission – to prepare students for real life situations – individual and collective work and learning in organizations.

Educators who want to form organizational learning environment empowering student individual and collective learning should take into consideration country or region cultural aspects, higher education policy and study program philosophical constructs as external factors that influence organizational learning environment empowering student individual and collective learning in university studies.

Meanwhile internal factors that can be controlled by educator are based on merging elements of three learning concepts. In organizational learning educational environment empowering student individual and collective learning in university studies curriculum design should be based on problem-based learning empowering students with collaborative learning elements and organizational learning elements. Students should work and identify themselves as small organizations, working on real life problems, applying and developing professional knowledge in collaborative activities to achieve common goals and understanding.

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