

The 6th International Conference Edu World 2014 “Education Facing Contemporary World Issues”, 7th - 9th November 2014

Using virtual learning communities in shaping the professional identity of primary and preschool pedagogy specialization students: a knowledge management approach

Alexandru Strungă^{a*}

^a*University of Craiova, 13 A.I. Cuza, Craiova 200585, Romania*

Abstract

This paper explores the relationship between using virtual learning communities in initial education process and the development of students' professional identity, by examining the most recent contributions in this field and by proposing a new strategy of knowledge management, at university level, that harness the virtual learning environment's potential, based on mobile learning models. In addition to that, the paper proposes a strategy for empowering higher education institutions to use VLCs in order to improve primary school teachers' professional identity highlighting especially the requirements, curriculum and evaluation of such a strategy, focusing on the existing best practices on international level.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of The Association “Education for tomorrow” / [Asociatia “Educatie pentru maine”].

Keywords: virtual learning communities; communities of practice; knowledge management; professional identity

1. Paper rationale

The idea of this paper initially started from our study of the European mental images in the field of primary and preschool education and how they are reflected in teachers' professional identity. One of the most important conclusions was that the process of assimilating the new mental images related to identity could be done in a more

* Alexandru Strungă. Tel.: +4-025-142-2567; fax: +4-025-142-2567.
E-mail address: alexstrunga@gmail.com

efficient way by developing new models of knowledge management, that are actively using the potential of virtual learning communities, at different levels of implementation: European, regional and national. The national level, analyzed in this paper, highlights the pivotal role of universities in building and maintaining virtual learning communities. In order to do so, we proposed a new concept (eidos) and we analyzed several models of managing students' professional identity, offering concrete suggestions for improving virtual learning communities' educational development strategies. Our study has three parts: 1) Premises for a new model of knowledge management in professional identity development; 2) Models of developing professional identity in virtual communities and 3) Managing professional identity development in virtual learning communities.

2. Paper theoretical foundation and related literature

First, according to Ayling, Owen and Flagg (2012), central to participation in a virtual learning community (VLC) for pedagogy students, is the concept of an educator's *identity*. This idea is also supported by Wenger (1998) who explained, that "issues of identity are an integral aspect of learning and are thus inseparable from issues of practice, community and meaning". According to our own studies in the field of professional development (Strungă, 2014), identity is the interface between social and individual and in BMEMI (the bi-dimensional model of European mental images) model is it also the pivot point between the national and European dimensions. From another perspective, Prentice presents two types of identity: Common and Common Bond. The Common Identity is commitment to an enterprise or a value, whereas the Common Bond is to the people involved in the enterprise (Prentice, 1994). Previous research also strongly suggests that students derive their identity from the communities to which they belong and where are accepted (Utz and Sassenburg, 2002; Handle, 2006 apud Ayling, Owen and Flagg, 2012).

Second, in the literature, the experts are constantly analyzing many concepts that are related to professional development and professional identity (North and Kumta, 2014). Some of them are the following: professional associations, professional learning communities, communities of practice, virtual professional learning networks. In this plethora of concepts and terms, multiple educational paradigms are models are used, from various fields of activity: education sciences, economy and business administration, social psychology, occupational psychology and so on. However, few studies, analyzed students' professional identity development from the knowledge management's point of view.

Third, many experts think there is considerable evidence to assert that a postmodern community is likely to be virtual. Insofar geographical distance and access to technology is concerned, the new technologies for information and communication (NTIC) can bring people together and build cultural bridges over nations (Nistor et al, 2013; McConnell et al, 2012). Many students and teachers are increasingly more communicating by using smartphones, tablets and laptops creating the premises for a radically new culture of education. One that can offer the possibility of instant access to information regarding almost any topic, that is connecting the people across the planet, bringing, in the same time, education closer to home. For the first time in the history of humanity, every act of communication has the potential of developing into an activity of education.

From our point of view, a virtual learning community must be embedded in a larger educators' virtual community of practice, under the supervision of a larger professional association. Unfortunately, there are not many influent professional associations that coordinate this process. In the field of Pedagogy, we can't find a similar institution to the College of Romanian Psychologists or equivalent organizations from the field of medicine. This phenomenon further reflects the marginal role Pedagogy has in the middle of the other social sciences, one of the most important perceptions of the general public being that anyone can teach, no matter their pedagogical training or competences. We find this social representation to be harmful to an efficient process of teachers' professional identity construction.

One of the best models of developing the sense of community and identity in the virtual space was proposed by Blanchard, Askay and Frear in 2010:

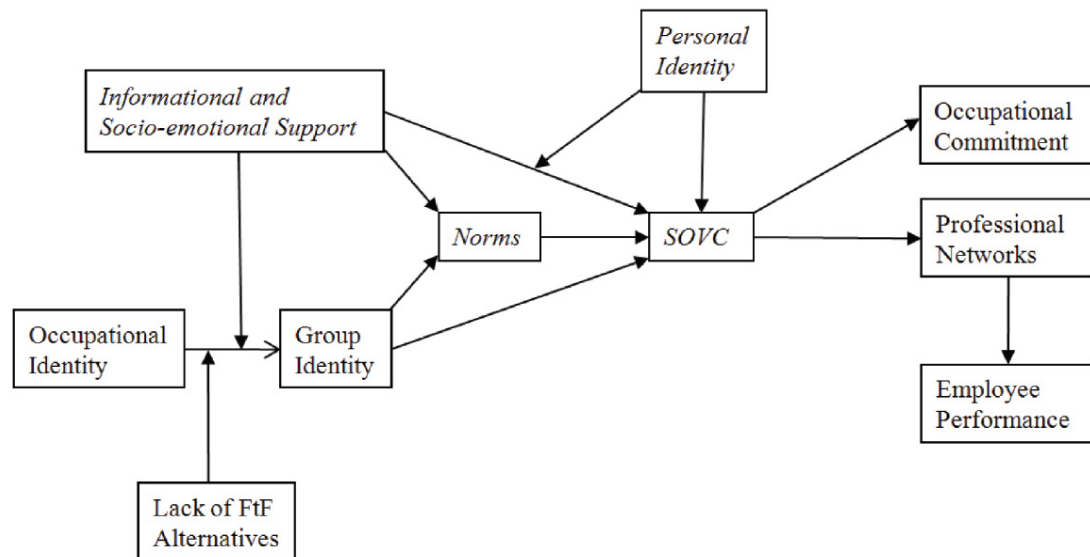


Fig. 1. The sense of virtual community (Blanchard, Askay and Frear, 2010)

This model takes into account many variables that are involved in the process of building an identity: informational and socio-emotional support, occupational identity, group identity, lack of face-to-face alternatives, norms, personal identity, occupational, commitment, professional networks and employee performance (in our case, student and teachers). From the model is apparent the relationship between personal identity the occupational identity that are mediated by the development of a sense of virtual community. We hypothesize that the development of a strong sense of virtual community can lead up to a better individual and occupational identity. This hypothesis is partially supported by highlighting the main benefits that the participation in virtual communities has especially for students and young professionals (Blanchard, Askay and Frear, 2010; Boulay and van Raalte, 2013; North and Kumta, 2014):

- *Occupational commitment* (Meyer, et al., 2006; Redman & Snape, 2005; Ritekka, 2005; Van Knippenberg & Sleebos, 2006 apud Blanchard, Askay and Frear, 2010); the members of virtual learning communities may have an increased occupational commitment. Occupational commitment is defined as the commitment to the actual work an employee does (Meyer, Allen, & Smith, 1993).
- *Building better professional networks*; according to Blanchard, Askay and Frear, by participating in a virtual learning community, members have the potential to interact with other similar professionals from around the country or region (Blanchard, Askay and Frear, 2010). This could widely increase the contacts a professional has to provide information for his or her job (Stewart 2005; Wasko and Faraj, 2005 apud Blanchard, Askay and Frear, 2010)
- *Better student performance* – students can increase their professional social capital through these networks (Oh, Chung, & Labianca, 2004; Putnam, 1996; Wellman, Haase, Witte, & Hampton, 2001 apud Blanchard, Askay and Frear, 2010).

From this model it is essential to take that the most important elements in building a real community are not the tools, however modern they may be (gadgets, excellent learning environments etc) but the people that are connecting with the help of this tools and the sense of community and identity that develops in such a group. This idea is supported by also differentiating between professional learning networks and communities of practice (Lee and Shaari, 2012).

Another model is one proposed by Cole and Engestrom in the framework of the *Activity Theory Framework* (Cole & Engestrom, 2003). In the process of adapting the model to the specifics of virtual learning networks, we can use the contributions of Schlager and Fusco: they explained that participation in online community is a new project (activity), designed to support and develop members (subjects), to use new activities and information (tools), to improve their performance (object). To undertake these activities using tools and objects, members must take on new collaborative roles (division of labour) based on values and norms (rules). The members are encouraged to

develop trust in, and form lasting relationships with, one another (community) as they implement new ideas in their practice (Ayling, Owen and Flagg, 2012).

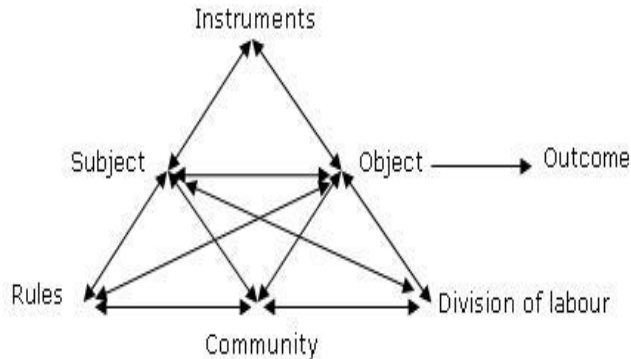


Fig. 2. Activity Theory Framework (Cole & Engestrom, 2003)

This model highlights the most important elements in the construction of identity understood as a community of professionals (future teachers of preschool and primary education). In order to build efficient learning community, we must take into account the interaction between these structures, in the framework of a knowledge management model.

One way of integrating the above models in a larger knowledge management models is to use the model proposed by Botha *et al* in 2008 and adapted by us in order to include the European mental imagery dimension. This model has three main dimensions, two concentrated on human focus and one focused on technology:

- Knowledge creation and sensing
- Knowledge organizing and capture
- Knowledge sharing and dissemination

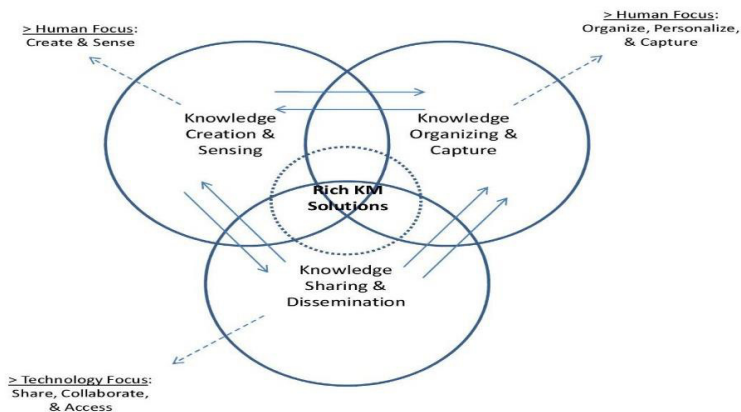


Fig. 3. The Knowledge management Process (Botha *et al*, 2008)

This is a radical approach to knowledge management that has in its core the academic community (in our case, the university). However, the only solution to implement these three functions more efficiently is to integrate the virtual learning communities in the main activities.

3. Author's contribution on the existing theory and practice in educational field

The importance of finding a new model in knowledge management that takes explicitly into account identity, is becoming more apparent, especially for the Romanian universities, placed between two main different sets of identities: European and national. In front of our very eyes, globalization process continues, merging national identities into European or global identities and atomizing other local or regional identities. There is a growing need of standardizing teaching training activity, enacting European regulations concerning quality, curriculum, achievement and evaluation. In this paper we will analyze some of the issues concerning pedagogy students' professional identity from Romanian higher education area. Since universities are "engines" of academic development they must be the most flexible, easily adaptable to the socioeconomic and political environment. Unfortunately many are not, because of the well-known inertia of the education system that often remains conservative and passive in new and unpredictable situations. The university, as an institution, often appears as a fragmented social environment, inert and poorly motivated to innovate. There are of course the well-known reasons advanced by teachers everywhere: lack of space, lack of investment in educational resources, infrastructure, poor law etc. This low socio-economic status is reflected in the process of identity development generating negative mental images regarding the Romanian educational system especially in comparison to European educational system (Strunga, 2014). This vicious cycle can only be stopped by confronting the issue of building an identity strong enough to counter the effects of low status, income and quality of life.

Based on our previous studies (Strunga 2009; Martin and Strunga 2009; Strunga, 2014), we propose a new concept in order to approach the issue of professional identity: *eidos*. This concept was first used by Plato in the sense of „forms” but in the context of professionalization can be understood as identity mental image, complementary to professional habitus. *Eidos* (plural: *eide*) is a specific type of mental image, that develops when the professional culture becomes sufficiently developed in order to allow the anchoring (used in the sense proposed by Serge Moscovici for social representations) of teacher's professional habitus. If having a habitus is not a process of which social actors are usually aware, *eidos* can have a conscientious character. Thus, *eidos* can become the object of education because the specifics of the profession (being a primary and preschool teacher), the professional culture, the professional standards, the relational, cultural and symbolic capital are socially constructed and the main actors of this process are the students from primary and preschool specialization and the educational institutions (universities, mainly) together with professional associations. We have identified four characteristics of *eidos*: a) *transactional character*, developed through communication with individuals that are both in the same professional group but from outside as well, by which the social mental image (related to a profession) is constructed; b) *imagistic character*, represented by symbols, values, attitudes, mental and conative patterns; c) *educational character* that is related to the potential of pedagogical valorization, through specific educational interventions (on the level of curriculum, evaluation, instruction, between many other elements) and d) *transversal character*, illustrated by the continuity between macro dimension (social pole) and micro dimension (the psychological pole). The main idea of this paper is how to encourage the development of *eidos*, starting from a knowledge management perspective, and adapting several models proposed in the literature.

4. Author's contribution on the topic

We will take as an example one possible virtual e-learning platform like Edmodo (www.edmodo.com, for primary education teachers in particular) that offers mobile as well as web access to students and instructors. Using Edmodo at the level of Primary and Preschool Pedagogy specialization has the opportunity to both integrate all the three main functions of the model presented by Botha et al and to use the model elaborated by us: knowledge creation and sensing; knowledge organizing and capture; knowledge sharing and dissemination. However, we can identify several prerequisites for using Edmodo: offering free wireless internet hotspots for both students and

professors, assuring that teachers and professors have access if not to the mobile application at least to the web version of Edmodo website; making sure that all the members of the community use the platform frequently (at least once a day if not more); it is also very important for both instructors and students to use adequate tools: smartphones, tablets, laptops and other devices that can record and upload content from the internet. We will describe several strategies for using such a model, at different levels of pedagogical implementation:

- *Virtual research and study of the learning behavior of students* is one of the most important advantages of using such a platform: we can measure the level of interest, hours spent on platform, the number of contributions in the virtual learning space and other useful parameters. The students have also the opportunity to create surveys using external web services such as Google Forms (for questionnaires).

- *Virtual curriculum* in comparison with the traditional version offers many advantages as well: the possibility to change the manuals (considering they are used in the form of a e-book) almost instantly at no cost for students or professors; multimedia content in courses – video, audio and interactive text (i.e. integration of Merriam-Webster dictionary or Wikipedia plugin) that is more intuitive and facilitate the learning process; the possibility of inter-platform integration (combining the use of multiple services such as Google Documents, Evernote, Dropbox etc. in order to assure a better flexibility for students' learning).

- *Virtual evaluation and assessment*, that is extended, in comparison with its traditional counterpart for all the learning activity of the students: the professors can take into account the contributions done in the free time, holidays and using all types of content available to express one's ideas; also this will lead to a more authentic formative education, that has transparent criteria and encourage the opinions and judgments of the whole group.

- *New constructivist virtual learning strategies* that start from the premise that students can learn anytime they want if are adequately motivated to use the new technologies of information and communication. Every time one student logs on the internet or reach out to entertainment websites (such as YouTube or TED) is an opportunity to learn, organize what they learn, share the news with their peers and instructors and create new knowledge based on that.

- *Building international virtual learning communities* is arguably the greatest advantages of using Edmodo and other similar platforms because it promotes social learning at European level in a framework that is especially constructed to facilitate students' learning. Students get to know foreign colleagues and teachers, learn their culture in context, exercise intercultural curriculum and competences, promote intercultural dialogue and cooperation, approach transcultural issues more easily and so on.

- *Linking virtual learning communities with virtual professional development communities*, under the supervision of a major professional association. This is a very important issue, in the context of our paper, which was not even mentioned in many studies of professional identity development. If in other fields (medicine, psychology) the professional practicum is oriented by professional associations, in Romania there is no such entity with the remarkable mention of the General Association of Primary School Teachers from Romania (Asociația Generală a Învățătorilor din România - AGIRO). One of the most critical enterprises that need to be done in field is the establishment of a professional association, similar with the College of Romanian Psychologists that should act as a mediator between universities' communities of practice and European professional networks. It is clear, from our point of view, that such an institution should embed also a professional learning community and a community of practice in which students can participate and contribute, in the framework of a more general e-mentoring approach.

- *Innovating virtual pedagogical practicum* by linking school-based virtual learning communities with university-based virtual learning communities. The general principle underlying this idea is the in order for teachers to learn how to effectively teach using virtual communities they must participate first themselves in such communities. This issue can be addressed by using Edmodo which is primarily aimed to elementary school. However, it is also sufficiently advanced in order to be used at university-level.

- *Integrating e-mentorship and e-internship* as new methods for developing students' professional identity. This is a very new approach in education sciences that can only be used in the framework of virtual learning communities. A special type of mentoring is e-mentoring, which can be defined as: a relationship that is established between a more senior individual (mentor) and a lesser skilled or experienced individual (protégé), primarily using electronic communications, that is intended to develop and grow the skills, knowledge, confidence, and cultural understanding of the protégé to help him or her succeed, whilst also assisting in the development of the mentor (Johnson & Ridley, 2004 apud Martin & Strungă, 2009). Stone considers that there are four main phases of e-

mentoring (Stone, 2004 apud Martin & Strungă, 2009): building the relationship, setting clear expectations, monitoring results and providing feedback.

- *Innovating the virtual relationships, interactions and norms* established between the members of the virtual learning community. These new elements, according to the model presented by Cole and Engeström in the Activity Theory Framework, must be adapted to: a better flexibility, openness to feedback and constructive criticism, a sense of virtual community.

5. Conclusions

First, the issue of virtual learning communities is of utmost importance for education sciences and needs to be further studied in the European and Romanian pedagogy, because it has a great potential in developing a better professional identity.

Second, we consider that there is an urgent necessity of implementing new virtual learning communities and environments in Romanian higher education institutions with the explicit aim of developing a better professional identity for primary and preschool teachers. This phenomenon is not well studied in the Romanian pedagogical literature, but it is at the core of many essential issues: the impact of the new technologies of information and communication in university education; the socioeconomic and professional status of teachers (in particular those who teach at primary and preschool level); integrating postmodern educational strategies like e-mentoring and e-internship the educational process; learning for the development of international collaboration in the framework of European Higher Education Area by using virtual tools and instruments.

Third, in order to create an adequate professional identity there is an urgent need to create a professional association of education sciences experts in order to: oversee the pedagogical training of primary and preschool students; elaborate deontological and ethical standards for the profession of teacher; encourage the development of research and development projects; support the alignment of Romanian teacher training policies with those from European level; elaborate research and methodological guidelines and so on. One of the next ways to assure such an entity will emerge and develop is by encouraging the development of the virtual learning communities, supervised by universities and education sciences experts. More, the solutions predicted by this model need to be included in a more general approach that takes into account a) the level of organisation and b) the geographical scope; in this context, we can identify European macro-institutional, meso-institutional European European micro-institutional; regional macro-institutional, regional meso-institutional, regional micro-institutional; national macro-institutional, national meso-institutional, national micro-institutional levels. Only a coherent and efficient correlation between these levels can lead to the crystallization of stable and functional European mental images (Strungă, 2014).

6. References

- Ayling, D., Owen, H., & Flagg, E. (2012). Thinking, researching and living in virtual professional development community of practice. *ASCILITE*, (2006). Retrieved from http://ascilite.org.au/conferences/wellington12/2012/images/custom/ayling_diana_-_thinking.pdf
- Blanchard, A., Askay, D. A., & Frear, K. A. (2010). Communication, Relationships and Practices in Virtual Work, 161–176.
- Botha, A., Kourie, D., & Snyman, R. (2008). *Coping with Continuous Change in the Business Environment: Knowledge Management and Knowledge Management Technology*. Oxford, UK: Chandos Publishing
- Boulay, R., & van Raalte, L. (2014). Impacting the Science Community through Teacher Development: Utilizing Virtual Learning. *International Journal of Technology, Knowledge and Society*, 9(4), 13–24.
- Cole, M., & Engeström, Y. (1993). A cultural-historical approach to distributed cognition. *Distributed Cognitions: Psychological and Educational Considerations*, 1–46.
- Martin, C., & Strungă, A. (2009). Flexicurity Dynamics and the Lisbon Strategy in Romania. *Romanian Journal of Education Sciences*, XI(2), 101–109
- McConnell, T. J., Parker, J. M., Eberhardt, J., Koehler, M. J., & Lundeborg, M. a. (2012). Virtual Professional Learning Communities: Teachers' Perceptions of Virtual Versus Face-to-Face Professional Development. *Journal of Science Education and Technology*, 22(3), 267–277.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*.
- Nistor, N., Göğüş, A., & Lerche, T. (2013). Educational technology acceptance across national and professional cultures: a European study. *Educational Technology Research and Development*, 61(4), 733–749.

- North, K., & Kumta, G. (2014). *Knowledge Management - Value Creation Through Organizational Learning*. New York, NY: Springer International Publishing.
- Prentice, D. A., Miller, D. & Lightdale, J. R. (1994) Asymmetries in attachment to groups, and to their members: Distinguished between common-identity and common-bond groups. *Personality and Social Psychology Bulletin* 20: 484-93.
- Strungă, A. (2009). Curriculum and institutional innovation models for Romanian universities in the context of Lisbon Strategy and European Higher Education Area. *Romanian Journal of Education Sciences*, XI(2), 59–66.
- Strungă, A. (2014). *Imaginile mentale europene și identitate profesională în formarea cadrelor didactice: aplicații în domeniul învățământului primar*. București: Editura Universitară.