THEORY AND PRACTICE
FOR LIFELONG LEARNING

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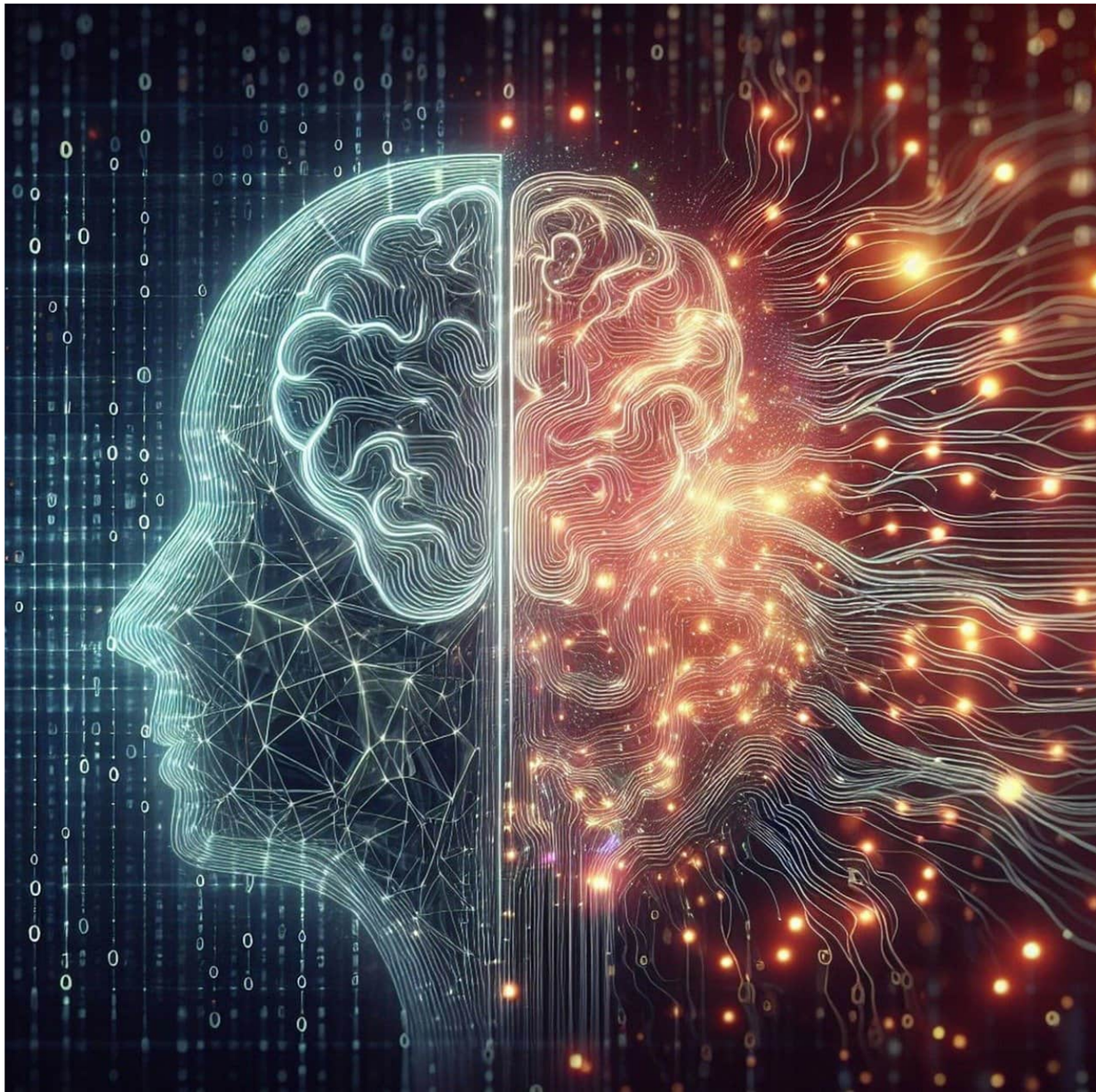

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VIRTUAL LEARNING COMMUNITY AS A CONTEXT FOR ELEARNING ON ENTREPRENEURSHIP AND SUSTAINABLE DEVELOPMENT

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Abstract

The purpose of this article is to provide a comprehensive understanding of the processes of formation and functioning of a virtual learning community – a web-based social learning space, or a community of practice, as a context for the organisation of eLearning on Entrepreneurship and Sustainable Development. The virtual learning community was created on a web platform in order to provide space for sharing best practices among its participants and learning from a team of professionals. Special attention in the study was given to monitoring of the emotional states of the community participants in order to ensure a balance between the level of their existing skills and knowledge on the subject and the level of complexity of tasks, to constantly maintain a positive atmosphere in the virtual community necessary for trustful interaction and creativity of its participants.

Keywords: virtual learning community, social learning space, eLearning, Entrepreneurship and Sustainable Development, emotional state, flow

Formation of a virtual learning community

The principle of creating a virtual learning community, which by its fundamental characteristics is very similar to the concepr of social learning space [1] and, formerly, community of practice [2], is focused on people and their proactive participation. Its participants unite around a common subject (domain); and if they feel trust, they become mutually engaged in sharing knowledge, driving the learning agenda, exchanging experience and best practice, and co-creating.

The paper presents a study focused on the creation and functioning of a virtual learning community as a context and space for organising eLearning process, where monitoring of the emotional states of its participants was carried out in order to ensure balance between the level of their skills and knowledge on the topic and the level of complexity of tasks, to constantly support a positive atmosphere in the virtual community necessary for trustful interaction, mutual engagement, creativity and co-creation of the participants. [3] The study results are based on primary datasets obtained within the period of 2018 – early 2022.

The purpose for creating the virtual learning community was to bring together practitioners from different regions of Ukraine motivated in continuous professional development in the area of Entrepreneurship and Sustainable Development. The organised eLearning within the formed virtual learning space enabled the participants to discuss the most relevant issues, share knowledge and best practice, have access to consultations with experts in various fields, create conditions for generating new ideas aimed at solving local development problems, learning and developing new competencies. Since the domain of the virtual learning community was Entrepreneurship and Sustainable Development, it provided necessary tools to entrepreneurs as 'drivers' for change and innovations, who jointly identified problems and developed effective solutions.

The participants who joined and formed the virtual learning community comprised a fairly diverse group of individuals with different competencies, experience and levels of skills, representing different enterprises and organisations from all regions of the country, united on the web-platform for eLearning in Entrepreneurship and Sustainable Development. According to the introductory survey, they were motivated to participate in the community to interact, learn and grow professionally, establish partnerships and do something jointly to achieve common goals.

Organising e-learning within the virtual learning community

After the virtual learning community was formed, and the joining factor for its participants was their needs and challenges they came across in their job, an e-course „Entrepreneurship and Sustainable Development" was prepared by a team of experts in the subject and introduced within the community. Our goal was to make the community both a context for eLearning and a professional network for knowledge sharing, as well as we strove to make it a partnership between the community members who could pool their knowledge and experience to accomplish a specific task (for instance, prepare a new project) while the participants become responsible for new knowledge construction within a single domain.

The e-course „Entrepreneurship and Sustainable Development" was based on the concept of self-regulated learning [4] and designed in a flexible manner so that the participants could plan their own learning trajectories. The eLearning process was tailored within the '4A' model [5], where: 1A – Attention to the community domain, 2A – Actualization by e-course goals and objectives, 3A – Attraction by professional networking, and 4A – Action by co-creating and sharing new knowledge.

The participants took part in discussion forums for networking, exchanging best practices, and in joint reflection on challenging situations in their practice. In response to the need for additional support in building trustworthy atmosphere in

the virtual learning community [6] and ensuring interaction between its participants, facilitation was offered. Facilitators were the community participants who had successfully implemented their own projects, taken part in training on facilitation and expressed their willingness to provide personal support to participants and help them generate 'out-of-the-box' ideas.

As a result of participation in the e-course, each year from 100 to 300 project concepts were developed by community participants in consultations with experts (tutors) and in line with the set criteria. Then these project concepts were peer reviewed by other community participants who evaluated and provided comments and recommendations for improvement of the concepts developed by three other participants. At this peer review stage, the participants had to use the acquired knowledge, 'tried on' the role of an expert and practiced skills in preparing and evaluating the sustainable development project concept. They reflected on the concepts of three other participants, and thus they became more aware of how they could improve their own project concept. Thus, after the participants received review and feedback from their peers and expert, they were able to look at their own project concept „with an unclouded eye", improve it qualitatively and proceed to the implementation of the project idea.

Stages of e-learning process in the e-course „Entrepreneurship and sustainable development"

While trustful and positive climate is a necessary precondition for openness to knowledge sharing, ideation and co-creation, in order to create meaningful learner experiences in Entrepreneurship and Sustainable Development, the emotional states of the participants of the virtual learning community were monitored. It also allowe us to find balance between the participants' level of skills and level of complexity of tasks, and to constantly maintain a positive climate in the virtual community for ideation process. [7]

It is vital for a learning community to support and promote knowledge sharing behaviour of its participants. [8] Knowledge sharing also leads to value creation, unleashes creativity, generation of innovative ideas, co-creation and knowledge construction process.

However, knowledge sharing behaviour in a virtual learning community has certain peculiarities since the interaction between its participants is not as spontaneous as in face-to-face environment. Thus, knowledge sharing behaviour is influenced by the presence in the virtual learning community of various methods for supporting interaction between its participants (discussion forums, workshops, consulting rooms, team-based learning activities) and the actual quality of knowledge and practice shared by community participants.

It should be noted that in order to support and intensify the knowledge sharing behaviour of the virtual learning community participants who usually do not know each other personally, creating an atmosphere of trust between the participants and ensuring their social presence online for establishing interpersonal contacts is essential. Building and maintaining trust in the community was given considerable attention by administrators, experts (tutors) and facilitators.

Thus, the main prerequisites for ensuring a trustworthy environment and supporting knowledge sharing behaviour among the virtual learning community participants include:

- Sharing common values and goals of the learning community by all participants. To achieve this, when registering in the virtual learning community, the participants were asked to carefully read and agree with the Rules and Values of the Community: „The learning process in our virtual learning community is based on the principles of professionalism, mutual respect, tolerance for the opinions of others, sharing of experiences, interaction, discipline and timely completion of all tasks, helpfulness, and fair evaluation."
- Encouraging all participants to self-presentation and self-identification in the virtual learning community through the creation of personal profiles and through participation in a moderated open discussion forum „We are here, all of us. We are the soil for future decisive changes" for getting to know each other, establishing contacts and interpersonal relations.
- Ensuring the level of competence and professionalism of the community participants. In order for participants to freely share their thoughts, ideas, and experiences, they had to be sure that their ideas and thoughts would be properly understood and interpreted by other participants. Thus, despite their different background and amount of practical experience, participants of the virtual learning community should have a similar level of competence in the subject area (domain) of the community.
- Shared values and accountability, responsible attitude of all participants to the tasks set within the community. For example, we noted that the 'bottleneck' in the e-course was the peer review stage: providing high-quality and timely evaluation and comments to the concepts of other participants without being judgmental but trying to be helpful as much as possible.

Therefore, in order to obtain a clear picture of the quality of the peer review, we ad hoc offered the participants to respond to a survey to find out their level of satisfaction with the quality of the received feedback and recommendations on their own project concept, as well as to self-reflect and evaluate their feedback on the concepts of their peers.

Since we strived to create a virtual learning community where all its participants bring something valuable in it, take something useful for themselves from it, and

together co-create and construct new knowledge, we asked the participants to share their thoughts on the (1) usefulness of the recommendations they received from their peers during the peer review stage, and (2) usefulness of their own recommendations provided to the concepts developed by the community participants.

In the survey, the following answers (in %) to questions were received:

Were the recommendations given to you by other participants: useful / relatively useful (50/50) / not useful at all?

68.3% of the surveyed participants confirmed that they consider the recommendations to their project concept received from their peers useful, and 30.2% considered them relatively useful (50/50). Only 1.5% of respondents did not see any benefit in the provided recommendations to their project concept.

In your opinion, did you manage to provide valuable and useful recommendations for improving the project concepts you reviewed?

Interestingly, compared to the answers to the first question of this survey, a significantly higher number of participants (82%) believed that they provided valuable recommendations to their peers.

However, due to the fact that 18% of the participants did not take the assignment seriously enough and did not provide specific and useful recommendations for improving the concepts of their peers' project concepts, and therefore, violated the CoP principles of accountability and helpfulness, this caused frustration among those community participants who expected but did not receive valuable feedback on their concepts.

After all, almost unanimously (95.2%) the participants who took part in the peer review used the opportunity to refine their project concept or make appropriate changes to their project.

Assessing emotional states of the participants in the virtual learning community

During the eLearning process, we were constantly monitoring the emotional states the community participants had at each stage of the e-course. For example, ideally, at the ideation stage participants should be in the state of flow: feel maximum freedom, excitement, enjoyment, mastery, success, while at the stage of peer review – feel control over the process, practice newly acquired knowledge and skills. In addition to these two desirable emotional states, participants can also feel arousal: be mobilised, focused, ready to take risks, and actively process information. And if necessary, we were ready to make appropriate interventions to foster the emotional involvement and engagement of the vCoP participants in knowledge sharing and co-creation.

For this purpose, after completing each stage of the e-course, we asked its participants to choose feelings and emotions they had, by marking specific emotions/feelings from the list of 8 categories developed according to 8 mental states (flow, arousal, control, anxiety, worry, relaxation, boredom, and apathy), following Csikszentmihalyi's flow model. [9]

Flow, arousal and control are the three mental states that appear when there is an adequate balance between the level of challenge of the assignment and the level of knowledge and skills the community participants have in order to perform this assignment.

To understand how comfortable the participants felt, first we asked them to indicate their own feelings and emotions at the stage of ideation and developing their project concept: „Choose the feelings and emotions you had most of the time while developing the project concept in the e-course":

- flow – delight and enjoyment, mastery and success, freedom,
- arousal – mobilisation and readiness to take risks, focus and concentration, active processing of information,
- control – practicing newly acquired knowledge and skills, confidence that everything is under control,
- relaxation – feeling relaxed, without tension, perceiving the task as entertainment and pleasure,
- worry – uncertainty, insecurity, expectation of a negative result,
- anxiety – fear,
- boredom – feeling bored, uninterested, having difficulty with concentration, everything seems obvious,
- apathy – feeling indifference.

From the answers received from the participants, we saw that at the stage of developing their own project concept, 33.3% of them were in the state of flow. At the same time, the majority of the community participants (79.4%) felt arousal, and 52.4% of them felt control. 3.2% of participants felt relaxed, and a relatively small number of participants experienced negative emotions, such as worry and insecurity (11.1%), anxiety and fear (6.4%).

Similarly, in order to understand how comfortable and secure the participants felt at the next stage of the e-course assignment – peer review, while performing an expert evaluation of the concepts developed by their peers, we again asked them to indicate their feelings and emotions by answering the following questions: „Choose the feelings and emotions you had most of the time when reviewing your peers' project concepts."

Based on the survey results, as we expected, at this stage the majority of participants (79.7%) were confident that everything was under control and

practiced the newly acquired knowledge and skills. Also, many participants (67.2%) felt arousal, and almost a third of the respondents (31.3%) were in the state of flow, felt mastery and success, freedom and joy. 9.4% of participants felt relaxed. And only a small number of participants felt anxiety (4.7%) and worry (3.1%).

The comparison of emotional states of participants of the virtula learning community at different stages of the e-course is presented in figure 1:

Figure 1. Comparison of emotional states of virtual learning community participants at different stages in eLearning process: (1) development of a project concept and (2) peer review

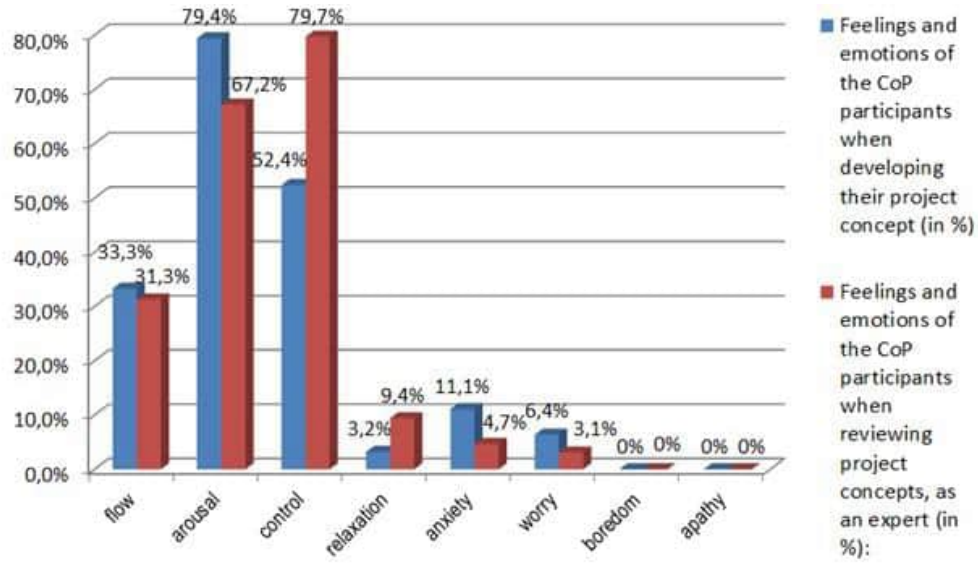

Figure 1 shows that the emotional states and emotions of participants of the virtual learning community depend directly on the (1) complexity of the proposed task and (2) participant's level of competences to perform it. And the first three emotional states actually indicate the optimal ratio of these two variables. Therefore, we can conclude that the complexity of the e-course assignments (project concept development and peer review) mostly corresponded to the level of the participants' competences for their implementation.

In the context of the created trustworthy environment, which is determined, in particular, by the level of responsibility and professionalism of the community participants, the monitoring of their emotional states indicates that all the tasks performed by participants of the virtual learning community corresponded to their level of knowledge and skills, as well as contributed to their knowledge sharing behaviour.

Conclusion

The presented research results show the viability of the eLearning process organised in framework of the virtual learning community (similar by its fundamental characteristics to a social learning space), which acts as a context for learning, where Entrepreneurship and Sustainable Development is a domain for this community, and social presence, mutual engagement and co-creation of its participants pools their knowledge and experience to accomplish a specific learning task.

The paper also presents a monitoring tool for evaluating the emotional states of participants in the virtual learning community, which reflect trust and a positive climate as a necessary prerequisite for creativity, idea generation and knowledge sharing.

Thus, a virtual learning community can act as an effective context for eLearning where, due to correctly defined learning needs, levels of complexity of learning tasks, appropriate learning design for individual learning trajectories based on personal learning capacity (i.e. relevant cognitive load), its participants often experience flow, feel arousal and control, share goals, strive for change, are responsible for knowledge construction and co-creation within a single domain.

Today, given the challenges Ukraine and its partner countries are currently overcoming in the crisis situation of full-scale Russia's aggression against Ukraine, in the post-war period the proposed approach of organising eLearning in the context of a virtual learning community and paying special attention to the emotional state of its participants can be used for continuous professional development in the area of Entrepreneurship and Sustainable Development aimed at creating public-private partnerships, ensuring the public participation in governance to achieve resilience, revitalisation and sustainable development of territories and communities.

References

[1] Wenger E., Snyder W. (2000), Communities of practice: the organizational frontier, Harvard Business Review

[2] Wenger-Trayner E., Wenger-Trayner B. (2020), Learning to make a difference: value creation in social learning spaces, Cambridge University Press

[3] Katernyak I., Sheremet M., Loboda V. (2009), eLearning: from social presence to co-creation in virtual education community, „Interactive Technology and Smart Education", vol. 6, No. 4

[4] Nakabayashi K. (2018), Course design investigation and trial on the subject of self-regulated learning using video content and online report submission,

Interactive Technology and Smart Education, vol. 15, No. 2, https://doi.org/10.1108/ITSE-10-2017-0050

[5] Katernyak I., Loboda V., Kulya M. (2018), eLearning within the Community of Practice for sustainable development, „Higher Education, Skills and Work-Based Learning", vol. 8, No. 3, https://doi.org/10.1108/HESWBL-03-2018-0030

[6] Yang S.J.H., Chen I.Y.L., Kinshuk Chen N.S. (2007), Enhancing the Quality of e-Learning in Virtual Learning Communities by Finding Quality Learning Content and Trustworthy Collaborators, „Educational Technology & Society", vol 10, No. 2

[7] Dell'Era C., Magistretti S., Cautela C., Verganti R., Zurlo F. (2020), Four kinds of design thinking: from ideating to making, engaging, and criticizing, „Creativity and Innovation Management", vol. 29, No. 2

[8] Csíkszentmihályi M. (2008), Flow: The psychology of optimal experience, New York, NY: Harper Perennial

[9] Chen I.Y.L., Kinshuk Chen N.S. (2009), Examining the Factors Influencing Participants' Knowledge Sharing Behavior in Virtual Learning Communities, „Educational Technology & Society", vol. 12 (1)