

DDHE - SYNCHRONOUS OR ASYNCHRONOUS DIDACTIC IN HIGHER EDUCATION INSTITUTIONS AFTER COVID-19

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Abstract: COVID-19 has led to growing dependence on synchronous and asynchronous learning methods. New technologies and software offer both positive and negative implications of knowledge. Some researchers argue that students do not achieve higher level learning in synchronous courses. We have to learn in how to use this technology for effective learning. Universities and academies are now experiencing the influence of synchronous and asynchronous learning methods. Online learning experiences after two years of covid give chance to summarize. This case study explored asynchronous methods derived from experiences in higher education institutions from Bulgaria, Greece, Poland and Romania. In present article presents an analysis of asynchronous learning methods used in the project “Implementation of Digitalization in Defence Higher Education-DDHE”. The purpose of this paper is to demonstrate that asynchronous online learning used in DDHE can create a rich cognitive presence capable of supporting learning in military higher education institutions. Asynchronous online learning in DDHE is not just another educational technology to be used as a simple enhancement but introducing the teacher to a higher level of cognitive didactics. DDHE is forcing educators to reflect on the teaching and learning process and what constitutes effective learning.

Keywords: synchronous, asynchronous didactic, learning, teaching, DDHE

1. INTRODUCTION

Implementation of Digitalization in Defence Higher Education is acronym of letters DDHE. The topic is very important for those who understand online learning as not just another educational technology to be used as a simple enhancement and then let slide as something new comes along. Online learning is here to stay and is forcing teachers to reflect on the teaching and learning process and what constitutes effective learning. After two years of COVID-19 teachers have learnt, or COVID-19 has led to growing dependence on synchronous and asynchronous learning methods. The experience gained also enables teachers to state that distance teaching will remain with them, to some extent, also after the pandemic is over. Some classes and lectures might be conducted this way. Considering this, it is possible to assert that the preferred direction within education will undoubtedly hybrid learning.

2. ONLINE LEARNING

Education is only now experiencing the early influence of online learning networks. In this regard, we have much to learn in how to use this technology for effective learning. It has been obvious that online learning has the potential to provide access for learners to a

wide range of programs and information. What has not been apparent, or at least not well understood, is that online learning is more than a means to access information.

It has the potential, to significantly enhance the intellectual quality of learning environments and outcomes (Garrison, 1997). Ultimately, effective learning must take into consideration both the internal cognitive process as well as the external contextual elements. In online learning context, but exceptionally in an asynchronous learning, there are two properties – reflection and collaboration – that shape cognitive presence in ways unique to this medium (Matheos & Cleveland-Innes, 2018). The two dimensions that shape the practical inquiry model are deliberation - action and perception - conception. The asynchronous and virtual nature of online learning calls on teachers to be self-directed and to take responsibility for their learning. That is, to assume greater control of monitoring and managing the cognitive and contextual aspects of their learning. This is both a challenge and an opportunity for asynchronous online learning. The challenge is that teachers have the responsibility to provide structure and guidance that will encourage and support students assuming increased control of their learning. The opportunity is that asynchronous online learning promotes self-directed learning. This will most assuredly mean a move from the transmission of vast amounts of information to the interactive asynchronous online learning based on virtual communities. New technologies and software offer both positive and negative implications of knowledge. Some researchers argue that students do not achieve higher level learning in synchronous courses (Allen & Seaman, 2009). To understand learning effectiveness for asynchronous online learning is to first appreciate what is unique about this medium. It is how we integrate and use the capabilities of asynchronous online learning in a synergetic manner that makes it unique (Morse, 2003). That is, it is how we combine and integrate possibilities that private and public worlds of student that will make the learning experience effective for all concerned Figure 1. We have to learn in how to use this technology for effective learning. Universities and academies are now experiencing the influence of synchronous and asynchronous learning methods. In this regard, it must be made clear that this cannot be accomplished by way of professor who is “sage on the stage” nor a “guide on the side”. New learning technologies such as asynchronous learning are far from providing access to more information. More information does not improve learning effectiveness. From a learning effectiveness perspective, the key is not to inundate students with information. The first responsibility of the teacher is to motivate students to self-learning. Students need to be “hooked on a big idea” where students feel connected and are cognitively engaged (Garrison, 2003).

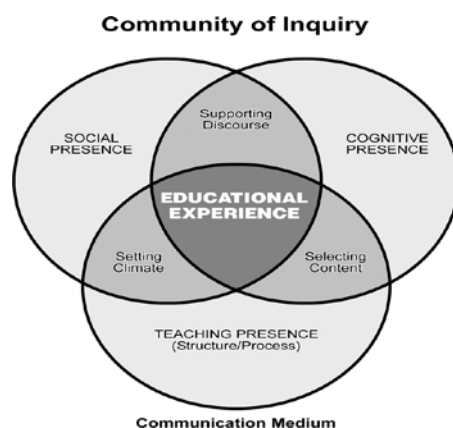


FIG. 1 Community of Inquiry (Source: Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*)

3. LEARNING EFFECTIVENESS

Where there is a community that supports and encourages ideas to be critically analysed, asynchronous learning has great learning effectiveness. At the same time, lecturing online or simply providing access to information is a complete misuse of asynchronous learning. Clarifying, explaining and summarizing are functions of a teacher. If this contact is constructive, asynchronous learning is not threatened (Allen & Seaman, 2007). We must begin to understand the cognitive presence implications of asynchronous online learning and how we, as professors, design and model an asynchronous learning environment. An environment where students have the opportunity to engage and take responsibility to manage and monitor their learning (Picciano, 2002). From other hand, if we want our students engaged in the critical thinking process, we must motivate them with well-written questions that guide them into asking more questions. This method usually does not extend the discussion beyond the exploration phase. But still is better than access to more information in pdf. In other words, every online discussion leads to higher level of cognitive presence and resolution during discussion (Garrison, 2003).

4. DDHE AS CASE OF ASYNCHRONOUS COURSES

Online learning experiences after two years of covid give chance to summarize. This case study explored asynchronous methods derived from experiences in higher education institutions from Bulgaria, Greece, Poland and Romania. In this last element author would like to present an analysis of asynchronous learning methods used in the project “Implementation of Digitalization in Defence Higher Education-DDHE”. Asynchronous online learning used in DDHE can create a rich cognitive presence capable of supporting learning in military higher education institutions (Guo et al., 2021). DDHE online classrooms coupled with heightened emphasis on removing geographic limitations have led to growing dependence on asynchronous learning as a delivery medium. From gained experiences an important difference is the identification of a specific and defined knowledge which can be obtained by diligence of effort, rather than by questioning and exploration (Wu & Hiltz, 2004).

Of telling importance is the Chinese proverb relative to project, which says “diligence overcomes stupidity” which is reflected in the generally high level of teacher’s effort from DDHE. DDHE teachers know that can be expected differing learning behaviours as a result of cultural background (Morse, 2003). Pedagogically, the contrast identified in DDHE aspects of cultural differences in perception highlight a design consideration in developing online classes (Zigurs, 2003). Although some of these differences can be addressed by improving the presentation (graphics, audio, questionnaires, etc.) of existing course content, especially given the many-to-many communication advantages and the peer-to-peer interaction (Valenta et al., 2001). Asynchronous online classes used in the online project “Implementation of Digitalization in Defence Higher Education” offer students more flexibility and reduce access challenges. Therefore, in DDHE project partners helped students succeed in asynchronous courses through careful course design, including building a community of inquiry that includes cognitive presence, instructor presence, and social presence. Building a community of inquiry is important to student success (Alderman, 2013). In DDHE asynchronous active learning took many forms, including: quizzes that can include multiple choice questions, blogs, student presentations, podcasts and other (Guo et al., 2021).

SUMMARY

The curricula of DDHE are composed for didactic on academic level. Whole project DDHE - the entire project consists of 12 full-time subjects, each of them being 5 ECTS and at least 16 online lessons. One subject is 40 hours online, so 12 times 40 equals 480 hours online. A colossal undertaking that requires perfect organization and cooperation of teachers preparing these subjects. Frequently Asked Question most often asked for all courses is: How effective was the course? is very hard for DDHE. Evaluation involves systematic and careful data collection and analysis of student questions (Laub, 1999). Workload in aspect of DDHE is hard to describe and probably author will need next pages to describe the evaluation of the course effectiveness.

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