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UGDYMAS IR MEDIJOS

Transformations of Digital Culture in Doctoral Studies in Pedagogy: Case of the University of Latvia

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Abstract. *Quality assurance within higher education studies, in the context of challenges associated with digital culture, requires scientific analysis. The legislation of Latvia predetermines that higher education institutions, being autonomous education and research institutions, are responsible for the quality of education delivered in Latvian higher education establishments. The hierarchic analysis of the most important development and planning documents of Latvia allows to conclude that the digitalization of the higher education area bears only a permissive character; however, the assurance of education quality nowadays is impossible without meaningful integration of ICT in the study process. The research conducted by the European Association of Universities on the transformations of higher education area in the context of digitalization has led to the conclusions that the development of digitalization strategies within the European higher education area has not been put forward as a national level issue remaining the responsibility of the education institutions themselves. Therefore, it is crucial to explore how the changes caused by digitalization are implemented in the concrete study programs. It is particularly important to explore the quality of higher education programs, as the programs within this education cycle comprise both education and research, illustrating the essence of the higher education institution as an autonomous education and research institution.*

The study, by applying the discourse analysis as a research method, aimed to assess the doctoral program of pedagogy, implemented by the University of Latvia, in order to find out how the discourse characterizing the digitalization of higher education is revealed in the annual self-evaluation reports of the programme.

Keywords: *transformations, pedagogy, digital culture, digitalization discourse, higher education.*

1. Introduction

It is apparent that changes may be viewed as a permanent state in education and innovative pedagogical methods in the field of technology application should be incorporated in all the university activities. However, it should also be highlighted that pedagogical innovations frequently lag behind technological innovations. Moreover, insufficient change management is observed in

higher education and academic staff lack competences that would help to implement changes in the field of digitalization. The described situation reveals and substantiates the topicality of the research problem.

Therefore, the aim of the research was formulated as follows: to explore annual self-evaluation reports of the doctoral program of pedagogy, implemented by the University of Latvia, by applying discourse analysis as a research method in order to identify the development of the digitalization discourse within the research sample.

Based on the research aim, the following research question was posed: how the discourse characterizing the digitalization of higher education is revealed in the annual self-evaluation reports of the program.

The research is based on the thesis that technologies and the Internet in the digital culture promote significantly both the quality of the individual's personal life and professional performance (Lamberti, Richards, 2011). Integration of technologies in education are promoted by transformations in the field of education. Assuming that digitalization of education is already taking place, it has to be admitted that the long-term evidence about its effectiveness on the development of the cognitive processes of individuals involved in the education process has not been widely explored. Therefore, the researchers' objective is to analyse the practice of introducing the digitalization in education, its benefits, challenges and risks. Digitalization of education is based on the interaction of three mutually linked aspects:

1) Introduction of technologies in the education space;
2) Ensuring the virtual learning environment and digital study materials;
3) Academic staff with developed media literacy (Jenkin, 2009). It is apparent that digitalization of education is impossible without provision of information and communication technologies; however, the dominating condition for qualitative and meaningful implementation of digitalization is the teachers who are able to use technologies in the teaching/learning process and who are equipped with the pedagogical strategies for their integration in the learning process in order to attain the aims of learning. Thus, digitalization of education creates challenges for the science of pedagogy.

2. Research context

Challenges associated with digital culture require scientific analysis to enhance the higher education quality. The legislation of Latvia predetermines that higher education institutions, being autonomous education and research institutions, are responsible for the quality of education delivered in Latvian higher education establishments. The research introduces the hierarchical analysis of the most crucial development planning documents including international level declarations and international reports on the development of higher education in Europe.

The origins of the Internet date back to 1968, when the Defence Ministry of the US merged several computer centers and used the Internet for military purposes. In a short time, the Internet started being used for scientific and research aims, long before it became popular for commercial

aims (Murāne, Bārzdiņš, 1996). The necessity of using media in the education space on the level of international political documents was emphasized in the 1970s. UNESCO published the *Declaration of Guiding Principles on the Use of Satellite Broadcasting for the Free Flow of Information, the Spread of Education and Greater Cultural Exchange*, which stated that the radio is an intrinsic tool for disseminating the values of education, research and culture. The *Declaration* urged to use the radio more frequently in the study process so that learners were able to acquire more interdisciplinary ideas that were up to date (UNESCO, 1972). The Grünwald Declaration on media education was signed by 19 countries in the international congress organized in Germany in 1982, which for the first time on the international level documented that people's critical thinking in the context of media use has to be promoted at the educational and political level. The *Declaration* encouraged the participating countries on the policy and education level to:

1) Develop programs for all education cycles (from preschool to tertiary level), including adult education with the aim of developing competences that would promote critical thinking necessary for using the printed and digital media, emphasizing the media content analysis, elaboration of the media content as the result of creative expression and active work in improving the media space;
2) Develop teacher education programs in order to improve their knowledge and awareness about the media. Moreover, preservice teachers should be familiarized with teaching/learning methods integrating technologies in the study process to be applied in their work with students;
3) Promote interdisciplinary research on media education, treating it in the context of psychology, sociology and communication sciences;
4) Support and promote international cooperation for the development of media education (UNESCO, 1982).

Although the origins of media education in Germany go back to 1960s, the Grünwald Declaration is considered to be the key document for purposeful development of media education or the digitalization of education on international level.

The origins of digitalization of education in Latvia are connected with August 1990, when the first electronic letters were sent in the Institute of Mathematics and Informatics of the University of Latvia (IMI UL). At that time, the process of sending electronic letters was more cumbersome than it is today, namely, the electronic letter had to be saved in a floppy disc and the disc taken to the place for sending, still this was a much faster way of communication of the UL researchers with their foreign colleagues than sending an ordinary mail. Services of the electronic network developed rapidly in Latvia. October 2, 1992 is considered the birthday of the Latvian Internet, but at that moment it was mainly used for academic purposes. In August 1993, two DEC computers that were the most powerful in Latvia at the time, with the support from the Soros foundation, were brought to IMI UL and became more accessible: every student, university teacher or researcher could become users and use email and other tools. In 1994, the internet became accessible to society at large and the first courses to learn how to use the

internet were organized in Latvia (Murāne, Bārzdiņš, 1996).

Urges to digitalize the education space continued on the international level also at the end of the 20th century, when the Sorbonne Joint Declaration (Joint declaration on harmonisation of the architecture of the European higher education system) was signed on May 25, 1998; it documented the position that students of the European higher education area must have access to the latest information and communication technologies (Allegre, Berlinguer, Blackstone, Rüttgers, 1998). The objective to digitalize the higher education area is incorporated in the Bologna Declaration, adopted in June 1999, which is very important also nowadays for the common higher education area (Bologna, 1999).

The digitalization of education has been discussed on the international level already since the 1970s; however, the first serious results pertaining to the research in the field of higher education stating the digitalization trends in education appeared at the end of the 20th century. A study performed in 1999 by the European University Association (EUA), titled *Trends In Learning Structures In Higher Education* concludes that changes in the physical and learning environment rooted in globalization and the use of information and communication technologies are assigned a significant role to within the higher education area of Europe (EUA, 1999).

Based on the analysis of the most important development planning documents of Latvia, the conclusion can be drawn that the first mentioning of the digitalization of education has been found in the guidelines on the development of higher education, science and technologies for the period 2002-2010, developed by the Higher Education Council of Latvia in 2002. This document positions digitalization as the development of the infrastructure of the education space (AIP, 2002).

The National development plan of Latvia 2007-2013, in its turn, clearly defines the tasks for the digitalization of the education system:

1) It is necessary to ensure modern ICT infrastructures in the education institutions of all levels and types;
2) It is crucial to promote the improvement of e-resources and broadening their applicability, improvement of the ICT skills within all education cycles (*LR Reģionālās attīstības un pašvaldību lietu ministrija* 2006 – Ministry of the Regional Development and Municipality Affairs, the Republic of Latvia).

The analysis of both international and politically significant documents for Latvia in the context of education allows concluding that digitalization of education is not the education development trend discovered in the 21st century; its origins are traced already in the middle of the 20th century. Moreover, the research revealed that the media education was discussed and the practice of its implementation was analysed in several Western European countries already in the 1960s, which confirms that media education was initiated by teachers and education institutions, as the first international declaration that urged to develop media education was approved only in the end of 1980s. This confirms that digitalization of education has started at the level of education practice. Later, it was acknowledged on the policy level.

The research performed by the European Association of Universities on the trans-

formations of higher education area in the context of digitalization has concluded that the development of digitalization strategies within higher education area in Europe has not been put forward as a national level issue but it remains the responsibility of the education institutions. Therefore, it is important to explore how the changes caused by digitalization are implemented in the concrete study programs. Moreover, by exploring the origins of the digitalization of education in the context of Latvia and the world, the discourse analysis of the doctoral study program in pedagogy (hereafter in the text – DSPP) leads to the all-embracing and more reasoned vision.

3. The Analysis of Higher Education Digitalization

The transformations within the education environment lead to the necessity for teachers to acquire new skills to be able to work in the digitalized education space. The European University Association (EUA) has performed a study which summarizes the teaching and learning transformations in the European higher education area surveying representatives from 451 higher education institutions in 46 countries. The results of the study revealed that the key transformations are rooted in the application of information and communication technologies for improving the teaching and learning processes in higher education space. It was estimated that the scope of the digitalization process in the future will increase in the European higher education area. Already today, 62% of the surveyed higher education institutions consider the integration of ICT to be extremely significant for the development of different processes that are crucial for higher education (Sursock 2015). The study *E-learning in European Higher Education Institutions* states that 77% of the 249 higher education institutions in Europe confirm that integrating technologies in the study process lead to the necessity to review teaching and learning methods. Furthermore, 57% of higher education institutions admit that e-learning promotes the quality of the teaching and learning process through the application of technologies and appropriate pedagogical strategies for their integration (Gaebel et. al., 2014). Several field studies within the education field confirm that the development trends and transformations in higher education are rooted in digitalization; however, they do not reveal the preconditions, risks, methods and strategies how to digitalize qualitatively the education space so that digitalization facilitated the quality of the education process and the development of the academic achievement of the individuals involved in the process of education.

In order to reveal the specific and important strategies for the digitalization of education, case studies need to be performed and analysed. The analysis of the studies performed by researchers in different countries allowed revealing several intrinsic features that have to be observed in the digitalization process of education:

1) For the integration of technologies to promote the cognitive development of those involved in the education process, it is not enough to perform the offered tasks and upload them in the virtual learning environment (VLE). In addition, students have to be ensured the possibility to use forums in the VLE to discuss and exchange ques-

tions, to comment on the uploaded tasks (Chamizo-Gonzalez et al., 2015);
2) The teacher has to ensure different electronic learning materials in the VLE accepting that students' thinking style and the perception of information also differ (Masrur, 2010).
3) It is assumed that representatives of the younger generation, who have grown up in the digital culture, are able to operate independently with the information and communication technologies (ICT), yet they lack experience how to use technologies for the learning purposes. In order to promote the digitalization of the study process, the academic staff and students have to exchange their views of the nature of the study process, requirements and organization in the virtual learning environment giving clear and precise instructions and promoting the understanding of how the system works (Xia, Rekola, 2013);
4) The academic staff has to offer a possibility for students to perform the role of teachers and to engage in the discussions of their peers' works in the virtual learning environment by asking questions and trying to find new common solutions (Laru, Naykki, Jarvela, 2012);
5) Students need to have a possibility to experiment with technologies seeking new applications, programs that could help them acquire the study material, reflect on the new teaching/learning tools explaining the learning process and demonstrating it to others (Chan et al., 2015).

By analyzing the studies and observing the situation in practice, two approaches to integrating technologies in the study process were identified. In the first approach, media are used as the support tools for the teaching process, e.g., visualizing the information using the data projector that does not promote the development of the media literacy, as students mainly are passive participants of the study process. For the media integration to be meaningful, ICT have to be direct learning tools. Academic staff have to use concrete pedagogical strategies to allow students to become active participants of the study process and gain experience in using technologies for learning purposes.

Digitalization of education change intrinsically the attitudes toward the science of pedagogy and higher education area. Moreover, significant transformations within education sciences are taking place. Firstly, the action field of pedagogy changes its focus from the locality principle to translocality, as the Internet and ICT ensure that pedagogical activities are not attached to the physical environment anymore. Secondly, it is the education internationalization process which transforms the science of pedagogy. The development of the multicultural education environment asks for the development of new competences and discontinuing the ethnocentric thinking. Thirdly, the development of virtual communities leads to additional challenges to be addressed within the teaching and learning process. Fourthly, as the Internet possibilities lead to specific strengths and new potential, management functions are transformed from centralization to decentralization giving more and more power and influence on the subordinated education institutions, organizations on the institutional level (Hepp, 2011).

4. Research Methodology and Procedure

Pedagogy as an independent branch of science in Latvia started to develop in the 1920s, when a pedagogy department was established in the University of Latvia and the University of Latvia started its development as the center of the science of pedagogy (Ozola, 2015). Changes in the university education system were introduced after the restoration of independence of the Republic of Latvia in 1991, which predetermined the necessity to educate new researchers and academic staff in pedagogy. Therefore, the first doctoral study program in pedagogy (DSPP) in Latvia was launched in 1992/1993. The aim and tasks of DPP were defined in accordance with the mission of the third cycle academic education – to provide the opportunities for the doctoral students' wholesome and independent career in the European Higher Education Area through the acquisition of elaborated research methodology, implementation of independent and innovative research developing and enriching pedagogical theories which would lead to positive impact on pedagogical practice in different education cycles (from kindergarten to adult learning), project management and improvement of teaching staff's professional qualification. Study load is 144 credit points (CP). DPP is structured by modules in three study cycles: the 1st cycle "Elaboration of Thesis" 100CP; the 2nd cycle "International Discussion of the Research Process and Results" 15CP; the 3rd cycle "Topical Research Methodology Issues in Education Sciences" 23CP, including professor's assistants' practice and Higher Education didactics. The remaining 6CP are awarded through participation in optional courses and activities. The awarded degree fully complies with PhD international requirements (University of Latvia, 2013).

Membership in the EU since 2004 led to significant changes in the DSPP, which were connected with the organization of the study program, the development of technologies and innovations, expansion of the international cooperation. From 2004 to 2015, more than 90 doctoral theses were defended in the University of Latvia in the field of pedagogy. 24 students are enrolled in the DSPP in the academic year 2016/2017.

In order to explore the discourse of education digitalization in the doctoral study program in pedagogy at the University of Latvia, the authors of the present research applied the discourse analysis method. The discourse, in Michel Foucault's approach, consists of statements that are analysed in two phases: archaeological and genealogical phases. The main task in the archaeological phase is the analysis of the sets of statements paying attention to the aspects of forming the discourse structure. Thus, the discourse is studied in the linguistic context assessing the statements about objects given by the subjects. In the genealogical phase, Foucault pays more attention to the role of power in creating the discourse, the context of the discourse and understanding how it is being formed gaining a wider social vision on the discourse (Fairclough, 1992). The objective of the authors of this study is to combine the two phases and, firstly, define and analyse the subject and object of the discourse, the context of the discourse, the link between power and discourse, secondly, to

explain the formation, spreading and consumption of the discourse (Kļave, 2013). The discourse consists of four elements: they are (1) objects about which the statements are given. The research object in the framework of the present study is the digitalization of higher education; (2) power positions of the subject from which these statements are expressed and relations between them; (3) concepts (notions) that are involved in the formulation of the discourse and (4) themes, theories (strategies) that form the discourse. In order to attain the aims of the study, three groups of subjects that form the discourse have to be differentiated: they are (1) students, (2) academic staff involved in the DSPP implementation and (3) UL administration and higher authorities that regulate the functioning of higher education. Although the subject creates statements, the subject is not given the main role in the creation of the discourse, as the subject expresses the statements under the influence of a certain ideology, a context. Subjects often operate with one and the same notion that is important for them, e.g., students emphasize the necessity of the digitalization of education, stressing the possibility to learn from the distance and at the time that is suitable for them (Howarth, 2000). The authors of the present study position the digitalization of education as an etiological driving force of the information society stressing the necessity for using meaningful and research-based results in implementing the digitalization and emphasizing the importance of pedagogical strategies in integrating technologies in the teaching/learning process.

The research summarizes and analyses 16 self-evaluation reports of the doctoral study program of pedagogy of the University of Latvia from the academic year 1999/2000 until 2014/2015. Annual DSPP self-evaluation reports are prepared to work toward the next accreditation of the program. The self-assessment reports are developed by the program directors incorporating the program development strategy and its strong link with the common university development vision. The self-assessment report is an official document characterized by the use of formal language and highlighting positive aspects. Negative statements are present in the analysis of students' survey included in the self-assessment reports. In Latvia, study programs are accredited once every six years, which is a long time, especially for the analysis of the digitalization discourse. Self-assessment reports are the only annual document describing the study programs, which allows for the detailed and retrospective observation of the development of the digitalization discourse. Based on the peculiarities of self-assessment reports as documents, the research focuses on the genesis of the digitalization discourse, i.e., exploration of the statements describing the introduction of technologies and their transformations within study program implementation.

The applied method allowed implementing a thorough and purposeful analysis which reveals the change of hegemonic discourse practices characterizing the digitalization of higher education.

5. Findings

It is crucial to explore the improvement of the quality of higher level programs, as the programs of this level combine education and research and illustrate most precisely

the essence of the higher education institution as an autonomous education and research institution. Doctoral study programs in pedagogy prepare not only the researchers in the field of pedagogy science, but also the future university academic staff in different branches of science. Therefore, in order to study the transformations caused by the digital culture in the higher education institution, it is crucial to carry out the analysis of the development of the doctoral study program in pedagogy.

The first indicators of the discourse of the digitalization of higher education both directly and indirectly were identified in the DSPP self-evaluation report for the academic year 1999/2000. The following statement serves as the evidence for the informatization of education: "UL Doctoral students have a possibility to use the Internet in the framework of the common digital net of Latvia." The statement is considered the starting point in the formation structure of the digitalization discourse; it should be highlighted that older self-assessment reports have not been preserved but the informatization of education that is the outset phase of digitalization in the University of Latvia is dated with the year 1990. Another statement is considered to be an indirect indicator of the digitalization discourse: "Students have the access to the printed periodical *Journal of Information Technology for Teacher Education*." This allows concluding that globalization has promoted the digitalization of the DSPP; however, it is not possible to identify the power relations of these subjects or how the accessibility of this printed journal has promoted the understanding of students and the academic staff about digitalization and its implementation.

The development of the digitalization discourse was not found in the self-assessment reports covering years from 2000 to 2002, which does not exclude the possibility that technologies were used in the study process. Moreover, other important aspects were activated in the self-assessment report.

A significant development of the digitalization discourse was observed in the doctoral study program in pedagogy, University of Latvia, in the academic year 2002/2003, when the following statement was included in the self-assessment report: "There are computer classes with internet connection." This is highlighted as an impressive achievement. The first power relations can be observed during this period, as students write in the assessment of the program: "Doctoral students want to use email in communication with the university teacher." It serves as the evidence that students being one of the three groups of subjects mentioned above are the ones that advance the formation of the digitalization discourse.

The informatization of education continued in the academic year 2003/2004, as laptop computers and data projector were purchased for the needs of the program. The following statement is important in the context of the development of the digitalization discourse: "To make a section in the home page of the faculty for the scientific publications and discussions of the doctoral students encouraging interactive learning and enrichment of the experience." This quote from the report confirms the consolidation of the two groups (students and the academic staff) for reaching common goals and for promoting the activity of the third group (the university

or institute administration). It has to be stated that the administration, as the third group of subjects, also promoted the development of the digitalization: "All the materials needed for the studies are still accessible in the home page of the faculty as well as urgent information is sent to doctoral students electronically. The extended possibilities to use the joint electronic catalogues of libraries of Latvia and the subscribed databases, e.g., EBSCO deserves appreciation." Therefore, this self-assessment report of the program states the possibilities of the technologies-based learning process for the first time.

Further development and improvement of the processes continued in the academic year 2004/2005. The doctoral study program in pedagogy changed its institutional attachment – from the Institute of Pedagogy and Psychology, University of Latvia, to the Faculty of Pedagogy and Psychology, University of Latvia. Therefore, the necessity to restructure the homepage of the faculty was stressed. Students moved forward as the dominant group of subjects in the development of the digitalization discourse in the particular year and this is confirmed by several fragments of the text taken from the self-assessment report. Students continued operating with the same concepts and themes, e.g., that they wanted to improve the electronic communication with the university teachers.

A serious development stage of the digitalization discourse is seen in the academic year 2005/2006, when the transformation from using technologies for the acquisition of information to using technologies for the meaningful study process took place. The identified transformation of the digitalization discourse is confirmed by three quotations from the report: "Students are offered a possibility to acquire the learning theories and participate in the research in the international e-platform (in German) as a result of the international cooperation with Braunschweig University"; "The use of new information and communication technologies gradually becomes the everyday experience of the doctoral students and their scientific supervisors"; "An e-service system, an e-library network has been established in the faculty library." Themes important for both the students and the academic staff for the formation of the digitalization discourse can be identified in these and other statements: international cooperation, information and communication technologies, e-learning experience, and e-services.

The academic staff of the DSPP in the academic year 2006/2007 started new initiatives and contributed significantly to the development of the digitalization attracting the funding for improving the infrastructure, including the establishment of the e-platform for doctoral students. It can be justifiably considered that during this and the previous academic year, DSPP implemented the Guidelines for developing the higher education, science and technologies 2002-2010 developed by Higher Education Council of Latvia, which reveals the context that forms the structure of the digitalization discourse of the program.

Digitalization, as a meaningful use of technologies in the study process, was strengthening in the academic year 2007/2008. This statement is grounded in the part of the self-assessment report describing that students are encouraged to take their own laptop computers with them to lectures in order to install program

for processing qualitative and quantitative data, such as, for instance, SPSS and AQUAD. Therefore, the translocality of education was being implemented, as students were no longer attached to the study process in the particular physical environment. It has to be mentioned that until this academic year, there have been equal power positions in the subject groups of students and the academic staff and they have even stimulated each other for the development, while the third group of subjects that was formulated as the UL administration, higher authorities that affect the higher education, has performed more permissive activities that do not influence directly the development of the digitalization.

The third group of subjects positions itself significantly in the structure of forming the digitalization discourse in the academic year 2008/2009 and this is proved by the statement: "Due to the lack of the state science funding further support to doctoral studies in the e-environment in the Research Institute of Pedagogy of the Faculty of Pedagogy and Psychology, University of Latvia, has been threatened." The concrete process cannot be associated with the drop in the quality of the academic and research activity but rather with the economic crisis in Latvia. This context shows the importance of the economic aspect in the digitalization process. However, the interaction of the two first groups of subjects fostered the development of the digitalization discourse and DSPP: "Doctoral students' participation in the study process is implemented by expressing recommendations in e-forums."

In the academic year 2009/2010, the digitalization discourse became stable and took the permanent place in the doctoral study program. The main group that forms the digitalization discourse in this academic year is the academic staff and this is proved by the statement: "It is necessary to promote a more purposeful use of the e-learning environment in relation to broadening of the internationalization possibilities and to ensure transparency in the doctoral study program."

It was found that the digitalization discourse in the DSPP was being transformed or acquired a more complete description in the academic year 2010/2011, which is confirmed by doctoral students: "All study materials are available in the MOODLE environment"; "Studies are well-organized, the interactive link with the faculty gives special feeling of joy"; "Technical provision, to my mind, is good, the computer is available, it is possible to present the materials etc." and "All materials in the MOODLE environment are very useful; they help to understand the theme more profoundly". This allows considering that the objective was reached in the cooperation between students and the academic staff. Moreover, the involved parties were able to ensure both the teaching/learning and the research process in the virtual learning environment.

The expansion of the digitalization discourse can be observed starting with the academic year 2011/2012 which is proved by the following statements: "As several students each year use the mobility opportunities in the European universities, the Moodle platform allows them to follow the processes in their own university"; "The IT support staff of the faculty is available in the case of necessity"; "The faculty library offers electronic service system, the access to the network of the electronic li-

brary, the digital books"; "The study and research possibilities are improving continuously owing to the funding received from the EU Structural fund, the international cooperation and the accessibility of IT." The statements confirm the positively directed activities of all the three groups of subjects in the development of the object of the discourse identified before. Besides, also the concepts and themes introduced in the formulation of the discourse became broader thus demonstrating the subjects' understanding about the implementation of the digitalization of qualitative education.

The digitalization discourse in the DSPP continued improving internally and spreading externally in the academic year 2012/2013 which is confirmed by the statement: "DSPP is organized and structured in accordance with the requirements set by the university as well as it is entered in the university information system LUIS where the rules of assessment and requirements for each course, module and the whole program are clearly described and available to each registered student." The conscious and purposeful use of technologies started in the academic year 2005/2006 and the first changes in the content of the program date back to the academic year 2012/2013, when the following statements were identified: "Compulsory optional part of the study program (Part B) includes […] the acquisition of the latest information and communication technologies." The objectives of the DSPP for the first time state: "To promote the gaining of the experience of the doctoral students in using the information and communication technologies." This statement revealed that the discourse was strengthened not only on the level of social practice but also secured the position on the level of the education system.

The academic year 2013/2014 can be assessed as the year of consolidating the digitalization discourse after the previous year of development and gaining the new position. Neither power relations between the groups of subjects nor the statements about the object of the research to be analysed could serve as evidence about the satisfaction with the digitalization discourse in the groups of subjects.

The academic year 2014/2015 introduces numerous students' suggestions for improving both the virtual learning environment and the integration of technologies in the study process, e.g., students state: "Lectures could be given online or recorded and placed in the e-environment"; "To continue discussions after the colloquium in the Moodle environment – establishing the forum for each colloquium." Students provided arguments to support the idea that this way the material discussed in the colloquium would become more meaningful, as it would foster material comprehension. The evidence suggests that students became more critical and demanding toward the learning environment and the university teachers in which was confirmed by the following statements: "Wi-Fi is not available in all study rooms of the faculty"; "I think that if teachers used more actively different options offered by Moodle, including the forums, then I, too, would use it more because it should be comfortable." Unequivocally, students as the group of subjects show power during this year demonstrating their desire for new digitalization elements of education and implementation practices.

The formulation of the structure of the

digitalization discourse in the DSPP was finalized studying the self-assessment report for the academic year 2014/2015. The figure introduced below graphically demonstrates the development of the digitalization discourse:

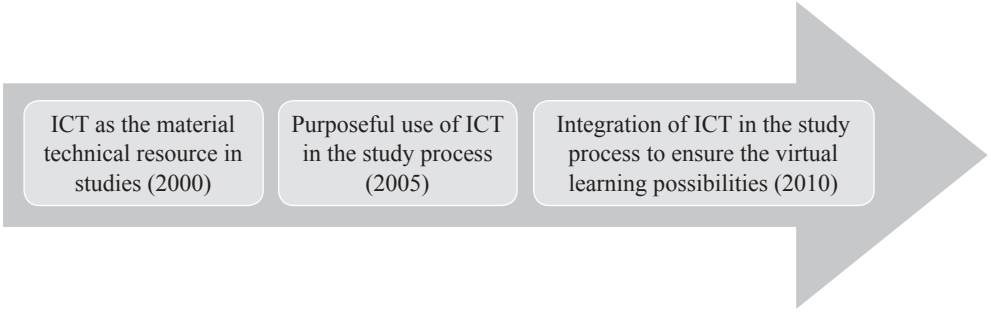

Figure No. 1. ***The development of digitalization discourse in the UL DSPP***

The scheme shows the most important transformations in the digitalization discourse of the DSPP. ICT in the academic year 1999/2000 were used as a technical resource for acquiring the information and partly for its dissemination etc. In the academic year 2005/2006, the digitalization discourse, in its turn, was transformed gaining a new structure in which the ICT were meaningfully integrated in the study process aiming to expand the possibilities of the doctoral students in the international context and to promote the study achievements. Thus, the digitalization discourse in the academic year 2010/2011 both partly changed its structure and at the same time improved it significantly, as students and the academic staff gained the possibility to implement the academic and research activities completely in the virtual learning environment. The statements and power positions in the discourse development process interact and, in certain periods, each group of the subjects became dominant over the formation of the discourse indicating the presence and activity of all the three groups within the process of the digitalization discourse development.

6. Discussion

The analysis of the DSPP and the annual self-assessment reports allows concluding that all three groups of subjects were involved in the formation of the digitalization discourse, which confirms common interest and, therefore, also the need to digitalize the education process. Although it is impossible to single out one hegemonic actor within the discourse formation, it is putative to conclude that the discourse structure is formed in the process of interaction and the role of each group of subjects has been changing in the period from 1999 until 2015. Based on the research results, the conclusion can be drawn that students' demand to digitalize the education space giving recommendations to their teachers in face-to-face meetings and filling in the assessment forms about the program partly impacted further evaluation of the program. Allocation of state budget study places and re-accreditation is an intrinsic actor in the formation of the digitalization discourse. The academic staff of the DSPP accepted students' recommendations and this confirms the existence of cooperation

between the groups representing two powers. However, it was also identified that the academic staff performed relevant activities in the context of digitalization of education and discourse formation and particularly during the time periods when students did not participate in the formation of the discourse. The formation of the discourse structure can be described as gradual: with years of rapid development and periods of stabilizing the introduced innovations. The positive aspect is that no manifestation of aggressive power was identified in the discourse formation process: presenting the strong points of the group of subjects and emphasizing the weak points of the opposite group to the public. This may be explained by the idea that students and the university teachers are united by a common goal: the development of the science of pedagogy. In a situation when the state budget funding for the program is curbed, the academic staff together with students found ways how to develop the digitalization process with internal resources. Only positive statements given by the subjects about the digitalization of education were found in the self-assessment reports. Nevertheless, in periods when the digitalization discourse transformed and changed both the physical and learning environment, the desire to preserve the traditional teaching/learning form was visible, which, certainly, is natural, as transformations are not easily accepted. The authors of the research conclude that the groups of subjects used almost identical concepts and themes in the formation structure of the digitalization discourse, which is linked with the development of the subjects' cognitive processes rooted in the introduction of technologies as a teaching/learning tool. Possibility to acquire new technologies, software; participation in international projects and strengthening the cooperation links; improvement of different languages and language skills; communication competence as well as the improvement of the research skills are key discourse markers. The development of the digitalization discourse of UL DSPP was introduced following the European and Latvian guidelines on the development of higher education, science and technologies since 2000. The digitalization of higher education facilitates a more full-fledged acquisition of the European qualification framework. It also helps to implement a student-centered study process at the university.

Based on the research results, the conclusion can be drawn that the digitalization of higher education influences not only the study environments but also the social and intellectual aspects of the study process. The structure formation of the digitalization discourse of the DSPP has taken place within the cooperation of students and the academic staff and it continues improving in accordance with the development trends of modern higher education.

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SKAITMENINĖS KULTŪROS TRANSFORMACIJOS PEDAGOGIKOS DOKTORANTŪROS STUDIJOSE: LATVIJOS UNIVERSITETO ATVEJIS

Zanda Rubene, Raimonds Strods

S a n t r a u k a

Tyrimo tikslas buvo taikant diskurso analizę ištirti Latvijos universiteto pedagogikos doktorantūros programą ir metines savianalizės ataskaitas nuo 1999–2000 iki 2014–2015 mokslo metų ir išsiaiškinti, kaip vystėsi programos skaitmeninimo diskursas ir kaip jis prisideda prie programos kokybės tobulinimo. Taikoma prieiga apima du etapus: archeologinį ir genealoginį. Pagrindinis archeologinio etapo uždavinys – išanalizuoti teiginių sekas pagal diskurso struktūros formavimo aspektus. Todėl diskursas tiriamas lingvistiniame kontekste vertinant subjektų pateikiamus teiginius apie objektus. Genealoginiame etape dėmesys telkiamas į galios vaidmenį kuriant diskursą, į diskurso kontekstą ir siekiama suprasti, kaip jis formuojamas įgyjant platesnę socialinę viziją. Diskurso analizė atskleidžia svarbias pedagogikos doktorantūros programos diskurso skaitmeninimo transformacijas: akademiniais 1999–2000 metais, siekiant gauti informacijos apie programą, ją skleisti ir pan., kaip techniniai ištekliai buvo naudojamos IRT. 2005–2006 mokslo metais skaitmeninimo diskursas transformavosi įgydamas naują struktūrą, kurioje IRT buvo prasmingai integruojamos į studijų procesą išplečiant doktorantams atsiveriančias galimybes tarptautiniame kontekste ir skatinant studijų pasiekimus. Todėl 2010–2011 mokslo metais iš dalies pakito skaitmeninimo diskurso struktūra ir ji gerokai patobulėjo, nes studentams ir dėstytojams buvo suteikta galimybė užsiimti akademine ir mokslinių tyrimų veikla virtualioje mokymosi aplinkoje.

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