INTED 2016
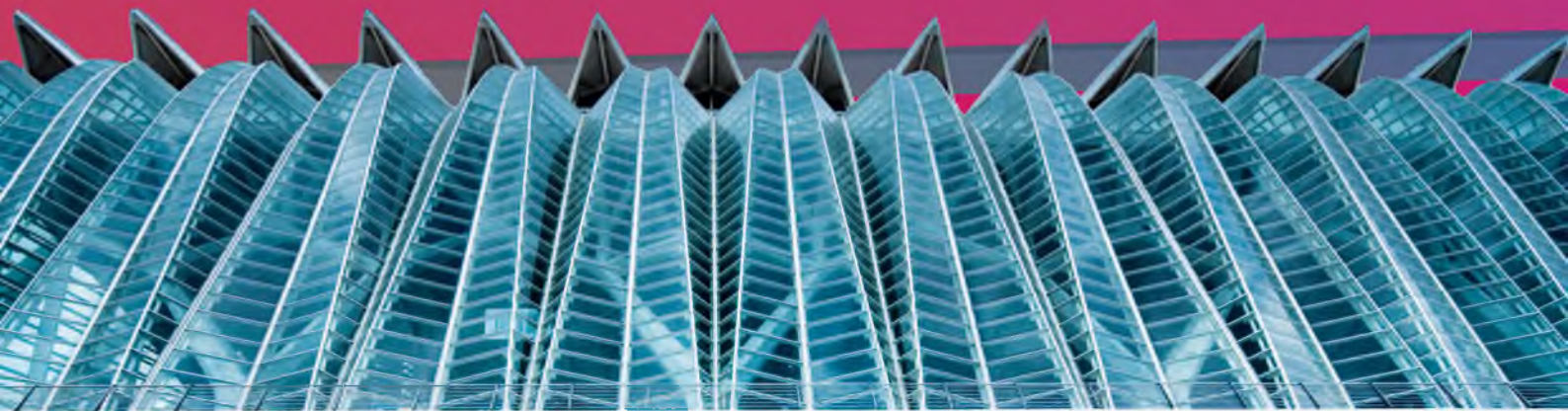
10th **International Technology, Education** and **Development Conference**

7-9 March, 2016
Valencia (Spain)

CONFERENCE PROCEEDINGS

10 years together for **education.**

INTED 2016

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INTED2016 Proceedings
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WELCOME INTRODUCTION

Dear INTED2016 participants,

Welcome to this 10th anniversary of INTED!

We wish to express our most sincere thanks for being part of this inspiring forum of knowledge exchange. It is a pleasure to present a varied program with a wide range of sessions covering all aspects of learning, teaching and educational technology advances.

After 10 years, this edition has brought together nearly 700 delegates coming from more than 80 countries. This will create a truly international and multidisciplinary atmosphere that will promote the interaction with other colleagues with the same aim: to meet, learn and share ideas for a better education.

We hope that your participation in this conference will provide you with an opportunity to open your minds to other educational perspectives and explore new horizons.

Thank you very much for your contribution to these *"10 Years together for Education"*.

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CONFERENCE SESSIONS

ORAL SESSIONS, 7th March 2016

Collaborative Learning
Massive Open Online Courses (MOOC)
Pedagogical & Didactical Innovations (1)
Meet the Keynote
Tutoring and Coaching
Entrepreneurship Education (1)
Management and Development in Education
Experiences in Foreign Languages Education

Problem-based and Inquiry-based Learning
Virtual and Augmented Reality
Pedagogical & Didactical Innovations (2)
Learning spaces and Next Generation Classrooms
Pedagogical Innovations in Primary and Secondary Education
Entrepreneurship Education (2)
Leadership and Management in Education
Language Learning Experiences

Flipped Learning
Open Educational Resources
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Creative and Innovative Projects in Education and Technology
ICT Innovations in Primary and Secondary Education
Professional Development of Teachers
Educational Experiences in Health & Life Sciences
Mobile Learning in Foreign Languages

Mobile Learning
Social Media in Education
Technology Enhanced Learning
Virtual Worlds & Robotics for Inclusive Learning
Inclusive Learning
ICT Skills and Competencies among Teachers
ICT in Health & Life Sciences
Technology in Foreign Language Education

POSTER SESSIONS, 7th March 2016

Experiences in Education

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ORAL SESSIONS, 8th March 2016

Blended Learning
Collaborative Virtual Environments
Multicultural and Diversity Issues
Special Education
Experiences in STEM
Digital Competencies & Digital Literacy
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New Projects and Innovations in Primary and Secondary Education (1)

e-Learning (1)
Educational Software and Apps
International Experiences and Mobility Programmes
Supporting the Undergraduate Experience for Students on the Autism Spectrum
Enhancing Learning and the Undergraduate Experience
Who's the best for the job?
Experiences in Business Education
New Projects and Innovations in Primary and Secondary Education (2)

e-Learning (2)
E-content Management and Development
Evaluation and Assessment of Student Learning
Critical Perspectives on 21st Century Education
Links between Education and Research
Competence Evaluation
Experiences in Curriculum Design in Engineering Education
Technology in Primary and Secondary Education

Research Experiences in Online Education
Learning Analytics & Big Data
ICT Innovations in Higher Education
Quality Assurance in Education (1)
Adult & Life-Long Learning
Labour Market and Skill Needs
Experiences in Engineering Education
Teacher Training and Development

Research on Technology in Education
Educational Software & Student Response Systems
University-Industry Collaboration
Quality Assurance in Education (2)
Postgraduate and Research Experiences
Work Employability
Experiences in Architecture and Civil Engineering
Pre-service Teacher Experiences

POSTER SESSIONS, 8th March 2016

Emerging Technologies in Education

New Trends and Pedagogical Innovations

VIRTUAL SESSIONS

Barriers to Learning
Collaborative and Problem-based Learning
Competence Evaluation
Computer Supported Collaborative Work
Curriculum Design and Innovation
E-content Management and Development
e-Learning
Education and Globalization
Education in a multicultural society
Educational Research Experiences
Educational Software and Serious Games
Enhancing learning and the undergraduate experience
Ethical issues in Education
Evaluation and Assessment of Student Learning
Experiences in STEM Education
Impact of Education on Development
Inclusive Learning
International Projects
Learning and Teaching Methodologies
Learning Experiences in Primary and Secondary School
Lifelong Learning
Links between Education and Research
Mobile learning
New projects and innovations
New Trends in the Higher Education Area
Organizational, legal and financial issues
Pedagogical & Didactical Innovations
Pre-service teacher experiences
Quality assurance in Education
Research Methodologies
Research on Technology in Education
Student Support in Education
Technological Issues in Education
Technology-Enhanced Learning
Transferring disciplines
University-Industry Collaboration
Virtual Universities
Vocational Training

EPORTFOLIO TECHNOLOGY IN EVALUATION OF STUDENTS' FORMAL, NON-FORMAL AND INFORMAL LEARNING, ACCREDITATION OF EDUCATIONAL PROGRAMS AND DEVELOPMENT OF E-LEARNING IN A FEDERAL UNIVERSITY

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Abstract

The integration of Russia's federal universities into international educational space suggests compliance of their educational programs for all levels of higher education with the established international standards and quality criteria. The e-portfolio offers the possibility to authentically assess students' learning outcomes at the study levels of the Bachelor's degree programme, Master's degree programme, postgraduate training programme. This article presents the experience of the Siberian Federal University

Keywords: assessment of educational results, formal, non-formal and informal Learning, ePortfolio, authentic assessment, formative assessment, accreditation, e-learning, Federal University, bachelor degree programs, master degree programs, postgraduate degree programs, lifelong learning.

Technologies of authentic assessment of formal, informal and non-formal learning are becoming important in the system of education in Russia. The assessment technologies provide continuity during the student's transition at the levels of higher education (Bachelor's degree programme, Master's degree programme, Postgraduate training programme) and allow students to store and showcase their learning outcomes to various target audiences.

Equally important for federal universities is the use of adequate tools for public professional accreditation and external expert evaluation of educational programs, e-learning technologies with a focus on the international European standards and guidelines (ESG). It contributes to the improvement of the quality of educational trainings for bachelors, masters and postgraduate students that are in demand in the current open labour market.

Modern educational technologies and tools of evaluation of students' learning outcomes and programmes of their graduation studies integrated in the system of e-learning of a higher education institution are the basic strategic directions. Such technologies and tools are considered, on the one hand, as a requirement of modern society, in which the generation, storage, processing and market focused realization of knowledge are of uppermost importance, and on the other hand, are employed as a tool for updating the content and increasing the efficiency of educational programs of a university [1].

The electronic portfolio (ePortfolio) is one of such interactive technologies to assess students' educational achievements in the settings of formal, non-formal and informal learning; to be used for accreditation of the programmes of students' graduation studies; and form a seamlessly integrated part of the e-learning development of the information-educational environment of a university.

The key advantage of application of information interactive technologies, including the e-portfolio, for the e-learning environment at a university, in the context of implementation of professional education programmes, is transition to the modern principles of the organization of educational activities and provision of continuity of the lifelong learning strategies.

1 BACKGROUND/CONTEXT

It was 20th anniversary of the Russian system of accreditation in 2015. The researchers note that a key achievement for education of the Russian Federation is the beginning of the formation of a "culture of assessment" and a "culture of quality" (from an interview with V. Bolotov [2].

Viktor Bolotov is a head of research Center of Education quality monitoring of the National research University "Higher school of Economics"; academician of the Russian Academy of education; an international expert in the field of education, the organization for economic cooperation and

development, UNESCO. He planned some directions of development of the accreditation system in the Russian Federation:

1   Reduction of the role of the state in this sector;

2   The international accreditation standards (e.g., existing in Russia National Center of public and professional accreditation - a member of ENQA);

3   Growing number of universities motivated on a realistic assessment of their work by the leading accreditation organizations in accordance with international standards.

2   DESCRIPTION

In September 2015, the Siberian Federal University (SFU) successfully passed the accreditation and evaluation of the e-learning system by the experts of the Agency for Quality Assurance in Higher Education and Career Development, which is an independent body to monitor the quality of education and career development (AKKORK) [3] in accordance with the requirements and criteria established by the European Foundation for Quality in e-Learning (EFQUEL).

Among three of nineteen institutes, the SFU's Institute of Education Science, Psychology and Sociology (IEPS) was set up as a platform to examine the e-learning of the University under the auspices of AKKORK. Educational programs of the Bachelor's and Master's studies of the IEPS were chosen for undergoing an international accreditation through active implementation of modern technologies in the educational process by the participation of IEPS in the digitisation and computerisation activities and the development of e-learning at the University.

IEPS is engaged in the implementation of models of blended learning by using e-learning environments aimed at improving the quality and supporting independent work of students in educational environment. The evolution of educational technologies is associated with systemic use of ICTs in information-educational environment of the University (LMS MOODLE, ePortfolio technology, e-learning system).

Over 10 years ePortfolio technology is actively used in IEPS at all levels of teacher training (Bachelor's degree programme, Master's degree programme, postgraduate training programme, professional development of University teachers).

One of the tasks of the course "ePortfolio in professional development and career" is the development of instrumental skills, which help to create an electronic portfolio on IEPS official website [4], and reflective materials prepared in one of open software environments Mahara, MOODLE. This course is developed for master degree students majoring in "Pedagogical Education" (program code - 44.04.01).

At the end of the course master degree students majoring in a pedagogical specialist field create ePortfolio which contains CV, individual learning plan, reflective reports, methodical materials, scientific works and other multimedia artifacts.

During the course students study not only modern electronic technology of the planning and career development, lifelong learning, but also acquire various software for design and development of ePortfolio in browsing to various WEB - platforms.

Students use ePortfolio for planning their own progress, presenting the educational and professional outcomes for internal and external activities' evaluation during the period of their study at the University.

The course "E-portfolio in professional development and career" is becoming a realization with the use of e-learning and distance learning technologies.

The realization with the use of e-learning and distance learning technologies is becoming a distinctive feature of the course "ePortfolio in professional development and career". Thus, in the first days of study of the module discipline students use the materials given on the lectures and do tests and tasks for independent work in SFU LMS Moodle [5]. Figure 1 shows the main page of the course "E-portfolio in professional development and career" in SFU e-learning system.

Fig. 1 – Interface of the course "ePortfolio in professional development and career" presented in SFU e-learning system Moodle.

Learning in an interactive educational environment of the University offers master degree students more opportunities for effective self-directed learning. Teachers can find there necessary tools to create the content of the discipline, further monitoring, reporting on the impact of training and the organization of communication between students and teachers.

Along with the use of LMS Moodle master degree students majoring in educational profession field create and fill their own ePortfolios with the artifacts, reflective materials, creative and practical work. [4]. Figure 2 shows an example of ePortfolio of the first year master degree student studying in IEPS, SFU.
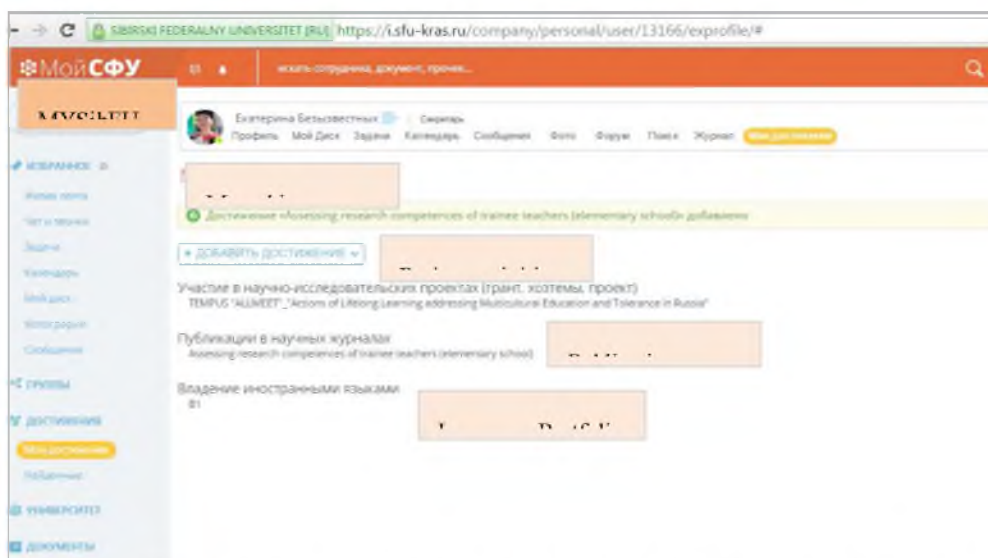

Fig. 2 – Example of ePortfolio of a first year master degree student majoring in "Pedagogical Education". It is published on the web-site of IEPS.

E-portfolio of a master degree student majoring in pedagogical specialist field is not only a part of the information-educational environment of the University, but also a part of the strategy of development of e-learning in the Federal University. It allows evaluating the educational outcomes of formal, informal and non-formal learning.

Master degree students create an individual electronic portfolio on the website of IEPS and make out the reflective materials according to the course.

Evaluation procedures are carried out both through using the interactive tests that were created in LMS Moodle and via e-portfolio.

The inclusion of master degree students in educational activities forms not only instrumental, information and communication skills, but also an individual project thinking and necessary professional competences.

All postgraduate students are required to complete their portfolios at the My SFU site during the preparation for accreditation (March, 2016) of the basic educational programs at the SFU postgraduate center [6]. An example of ePortfolio section "My achievements" is presented in figure 3.

| Greeting | CV | Achievements | Reflection | Contacts |

На данное время, проработав в школе 19 лет, достижения следующие:
10 лет являюсь экспертном предметной комиссии по ЕГЭ;
7 лет эксперт предметной комиссии ОГЭ;
за время работы было 3 выпуска учащихся (11 класс), мои выпускники всегда сдавали математику по показателям выше краевых и городских.

В 2013 году приняла участие в международном сравнительном исследовании учителей математики (NorBA), которое проводила Высшая школа экономики.

Результаты по курсам

Е-портфолио в профессиональном развитии и карьере

- Проект структуры портфолио (.pdf 500.85 кб, добавлено: 25.10.2015 13:34)
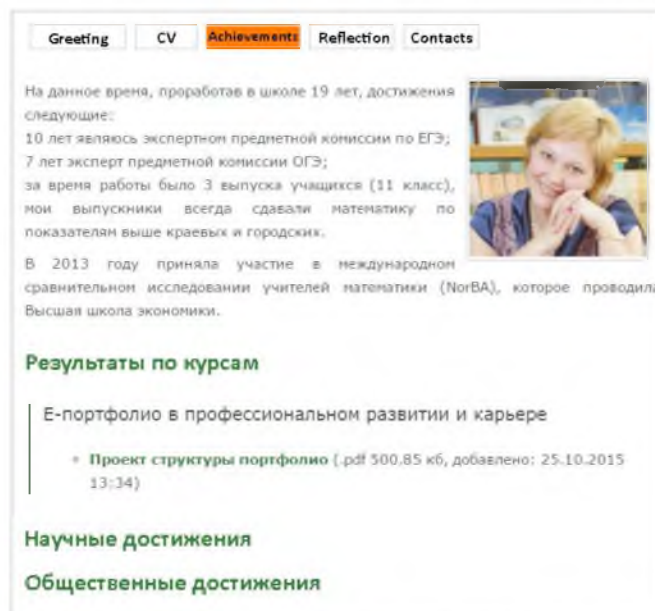
Научные достижения

Общественные достижения

Fig. 3 – ePortfolio of the master degree student. It is published at the SFU portal.

Postgraduate students with the support of their supervisors fill in this section with information about publications, grant activity, data on participation in the international scientific-practical activities of expert communities.

ePortfolio of postgraduate students will be analyzed in detail by the experts working at Federal State Budgetary Institution "National Accreditation Agency in Education" ("Rosakkredagenstvo"). The results are considered in the accreditation of basic educational programs of SFU Postgraduate School.

Figure 4 presents the model of ePortfolio use in SFU.

First, it is use of ePortfolio technology in the results' assessment of formal, informal and non-formal education at various levels: bachelor degree program, master degree program, postgraduate program and advanced training program. Secondly, ePortfolio is a tool for the development of e-learning at SFU. Interactivity and information richness of e-education environment is achieved through the development of e-learning courses in MOODLE system, ePortfolio portfolio in MAHARA system, e-learning courses and SFU electronic library.

Thirdly, in SFU ePortfolio is used as a tool for accreditation of e-learning and educational programs of different levels at the University.
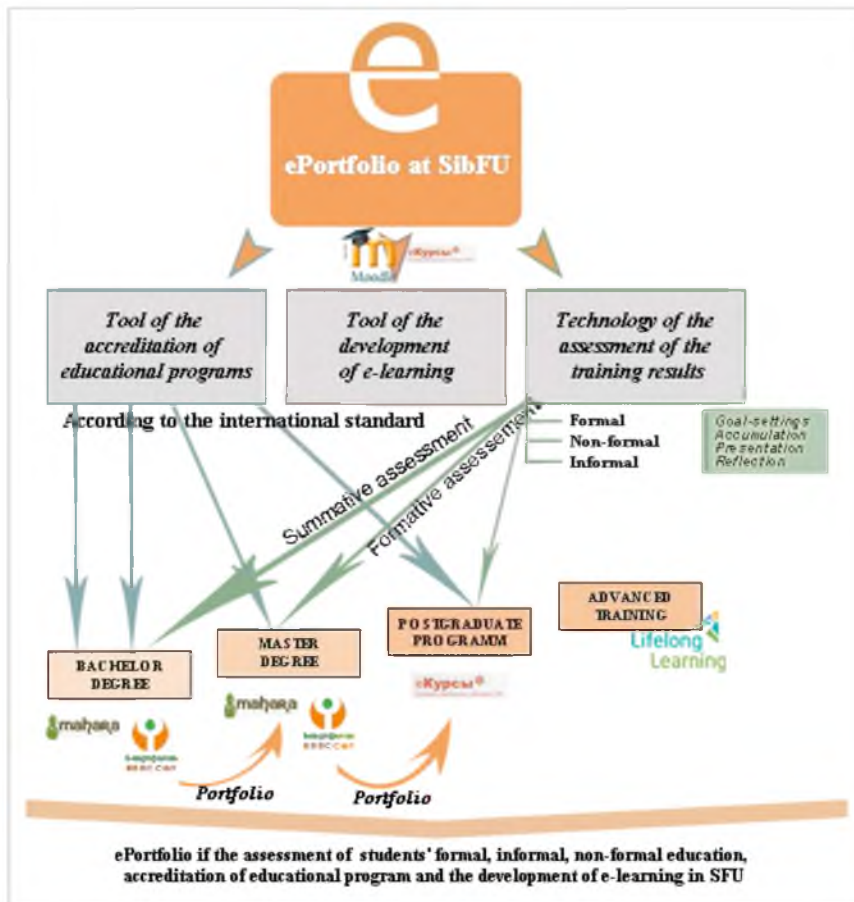
Fig. 4 - Scheme of ePortfolio use in the University: in the evaluation of results of formal, informal and non-formal education, accreditation of educational programs and the development of e-learning at the University.

On the scheme presented on the figure 4 ePortfolio resource opportunities are demonstrated. These opportunities integrate meaningful instrumental and technological contexts of ePortfolio use in the system of continuous training at the Federal University. It should be noted that on inter-level transitions (bachelor degree program/ master degree program and master degree program /postgraduate program) the procedure of estimation based on the portfolio is used.

3 CONCLUSION

Thus, in the current high school educational environment there is a compelling need to use universal interactive technologies to assess the outcomes and achievements of students' formal, informal, non-formal learning at all levels of education, as well as during the student's transition at the higher education levels.

The integration of Russia's federal universities into international educational space suggests compliance of their educational programs for all levels of higher education (Bachelor's degree programme, Master's degree programme, postgraduate training programme) with the established international standards and quality criteria. The e-portfolio offers the possiblity to authentically assess students' learning outcomes at the study levels of the Bachelor's degree programme, Master's degree programme, postgraduate training programme; to ensure their continuity, to be one of the appropriate tools in the system of evaluation and accreditation of educational programs and development of e-learning in a federal university; and to meet the requirements and satisfy the needs of different participants in the educational process.

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