



REVISTA INCLUSIONES

HOMENAJE A NOEMÍ LILIANA BRENTA

Revista de Humanidades y Ciencias Sociales

Volumen 8 . Número Especial

Enero / Marzo

2021

ISSN 0719-4706

CUERPO DIRECTIVO

Director

Dr. Juan Guillermo Mansilla Sepúlveda
Universidad Católica de Temuco, Chile

Editor

Alex Véliz Burgos
Obu-Chile, Chile

Editor Científico

Dr. Luiz Alberto David Araujo
Pontificia Universidade Católica de Sao Paulo, Brasil

Editor Europa del Este

Dr. Alekzandar Ivanov Katrandhiev
Universidad Suroeste "Neofit Rilski", Bulgaria

Cuerpo Asistente

Traductora: Inglés

Lic. Pauline Corthorn Escudero
Editorial Cuadernos de Sofía, Chile

Portada

Lic. Graciela Pantigoso de Los Santos
Editorial Cuadernos de Sofía, Chile

COMITÉ EDITORIAL

Dra. Carolina Aroca Toloza
Universidad de Chile, Chile

Dr. Jaime Bassa Mercado
Universidad de Valparaíso, Chile

Dra. Heloísa Bellotto
Universidad de Sao Paulo, Brasil

Dra. Nidia Burgos
Universidad Nacional del Sur, Argentina

Mg. María Eugenia Campos
Universidad Nacional Autónoma de México, México

Dr. Francisco José Francisco Carrera
Universidad de Valladolid, España

Mg. Keri González
Universidad Autónoma de la Ciudad de México, México

Dr. Pablo Guadarrama González
Universidad Central de Las Villas, Cuba

Mg. Amelia Herrera Lavanchy
Universidad de La Serena, Chile

Mg. Cecilia Jofré Muñoz
Universidad San Sebastián, Chile

Mg. Mario Lagomarsino Montoya
Universidad Adventista de Chile, Chile

Dr. Claudio Llanos Reyes
Pontificia Universidad Católica de Valparaíso, Chile

Dr. Werner Mackenbach
Universidad de Potsdam, Alemania
Universidad de Costa Rica, Costa Rica

Mg. Rocío del Pilar Martínez Marín
Universidad de Santander, Colombia

Ph. D. Natalia Milanesio
Universidad de Houston, Estados Unidos

Dra. Patricia Virginia Moggia Münchmeyer
Pontificia Universidad Católica de Valparaíso, Chile

Ph. D. Maritza Montero
Universidad Central de Venezuela, Venezuela

Dra. Eleonora Pencheva
Universidad Suroeste Neofit Rilski, Bulgaria

Dra. Rosa María Regueiro Ferreira
Universidad de La Coruña, España

Mg. David Ruete Zúñiga
Universidad Nacional Andrés Bello, Chile

Dr. Andrés Saavedra Barahona
Universidad San Clemente de Ojrid de Sofía, Bulgaria

Dr. Efraín Sánchez Cabra
Academia Colombiana de Historia, Colombia

Dra. Mirka Seitz
Universidad del Salvador, Argentina

Ph. D. Stefan Todorov Kapralov
South West University, Bulgaria

COMITÉ CIENTÍFICO INTERNACIONAL

Comité Científico Internacional de Honor

Dr. Adolfo A. Abadía

Universidad ICESI, Colombia

Dr. Carlos Antonio Aguirre Rojas

Universidad Nacional Autónoma de México, México

Dr. Martino Contu

Universidad de Sassari, Italia

Dr. Luiz Alberto David Araujo

Pontificia Universidad Católica de Sao Paulo, Brasil

Dra. Patricia Brogna

Universidad Nacional Autónoma de México, México

Dr. Horacio Capel Sáez

Universidad de Barcelona, España

Dr. Javier Carreón Guillén

Universidad Nacional Autónoma de México, México

Dr. Lancelot Cowie

Universidad West Indies, Trinidad y Tobago

Dra. Isabel Cruz Ovalle de Amenabar

Universidad de Los Andes, Chile

Dr. Rodolfo Cruz Vadillo

Universidad Popular Autónoma del Estado de Puebla, México

Dr. Adolfo Omar Cueto

Universidad Nacional de Cuyo, Argentina

Dr. Miguel Ángel de Marco

Universidad de Buenos Aires, Argentina

Dra. Emma de Ramón Acevedo

Universidad de Chile, Chile

Dr. Gerardo Echeita Sarrionandía

Universidad Autónoma de Madrid, España

Dr. Antonio Hermosa Andújar

Universidad de Sevilla, España

Dra. Patricia Galeana

Universidad Nacional Autónoma de México, México

Dra. Manuela Garau

Centro Studi Sea, Italia

Dr. Carlo Ginzburg Ginzburg

Scuola Normale Superiore de Pisa, Italia

Universidad de California Los Ángeles, Estados Unidos

Dr. Francisco Luis Girardo Gutiérrez

Instituto Tecnológico Metropolitano, Colombia

José Manuel González Freire

Universidad de Colima, México

Dra. Antonia Heredia Herrera

Universidad Internacional de Andalucía, España

Dr. Eduardo Gomes Onofre

Universidade Estadual da Paraíba, Brasil

Dr. Miguel León-Portilla

Universidad Nacional Autónoma de México, México

Dr. Miguel Ángel Mateo Saura

Instituto de Estudios Albacetenses "Don Juan Manuel", España

Dr. Carlos Tulio da Silva Medeiros

Diálogos em MERCOSUR, Brasil

+ Dr. Álvaro Márquez-Fernández

Universidad del Zulia, Venezuela

Dr. Oscar Ortega Arango

Universidad Autónoma de Yucatán, México

Dr. Antonio-Carlos Pereira Menaut

Universidad Santiago de Compostela, España

Dr. José Sergio Puig Espinosa

Dilemas Contemporáneos, México

Dra. Francesca Randazzo

Universidad Nacional Autónoma de Honduras, Honduras

Dra. Yolando Ricardo

Universidad de La Habana, Cuba

Dr. Manuel Alves da Rocha

Universidade Católica de Angola Angola

Mg. Arnaldo Rodríguez Espinoza

Universidad Estatal a Distancia, Costa Rica

Dr. Miguel Rojas Mix

*Coordinador la Cumbre de Rectores Universidades
Estatales América Latina y el Caribe*

Dr. Luis Alberto Romero

CONICET / Universidad de Buenos Aires, Argentina

Dra. Maura de la Caridad Salabarría Roig

Dilemas Contemporáneos, México

Dr. Adalberto Santana Hernández

Universidad Nacional Autónoma de México, México

Dr. Juan Antonio Seda

Universidad de Buenos Aires, Argentina

Dr. Saulo Cesar Paulino e Silva

Universidad de Sao Paulo, Brasil

Dr. Miguel Ángel Verdugo Alonso

Universidad de Salamanca, España

Dr. Josep Vives Rego

Universidad de Barcelona, España

Dr. Eugenio Raúl Zaffaroni

Universidad de Buenos Aires, Argentina

Dra. Blanca Estela Zardel Jacobo

Universidad Nacional Autónoma de México, México

Comité Científico Internacional

Mg. Paola Aceituno

Universidad Tecnológica Metropolitana, Chile

Ph. D. María José Aguilar Idañez

Universidad Castilla-La Mancha, España

Dra. Elian Araujo

Universidad de Mackenzie, Brasil

Mg. Romyana Atanasova Popova

Universidad Suroeste Neofit Rilski, Bulgaria

Dra. Ana Bénard da Costa

Instituto Universitario de Lisboa, Portugal

Centro de Estudios Africanos, Portugal

Dra. Alina Bestard Revilla

*Universidad de Ciencias de la Cultura Física y el Deporte,
Cuba*

Dra. Noemí Brenta

Universidad de Buenos Aires, Argentina

Ph. D. Juan R. Coca

Universidad de Valladolid, España

Dr. Antonio Colomer Vialdel

Universidad Politécnica de Valencia, España

Dr. Christian Daniel Cwik

Universidad de Colonia, Alemania

Dr. Eric de Léséulec

INS HEA, Francia

Dr. Andrés Di Masso Tarditti

Universidad de Barcelona, España

Ph. D. Mauricio Dimant

Universidad Hebrea de Jerusalén, Israel

Dr. Jorge Enrique Elías Caro

Universidad de Magdalena, Colombia

Dra. Claudia Lorena Fonseca

Universidad Federal de Pelotas, Brasil

Dra. Ada Gallegos Ruiz Conejo

Universidad Nacional Mayor de San Marcos, Perú

Dra. Carmen González y González de Mesa

Universidad de Oviedo, España

Ph. D. Valentin Kitanov

Universidad Suroeste Neofit Rilski, Bulgaria

Mg. Luis Oporto Ordóñez

Universidad Mayor San Andrés, Bolivia

Dr. Patricio Quiroga

Universidad de Valparaíso, Chile

Dr. Gino Ríos Patio

Universidad de San Martín de Porres, Perú

Dr. Carlos Manuel Rodríguez Arrechavaleta

Universidad Iberoamericana Ciudad de México, México

Dra. Vivian Romeu

Universidad Iberoamericana Ciudad de México, México

Dra. María Laura Salinas

Universidad Nacional del Nordeste, Argentina

**REVISTA
INCLUSIONES** M.R.
REVISTA DE HUMANIDADES
Y CIENCIAS SOCIALES

Dr. Stefano Santasilia
Universidad della Calabria, Italia

Mg. Silvia Laura Vargas López
Universidad Autónoma del Estado de Morelos, México

Dra. Jaqueline Vassallo
Universidad Nacional de Córdoba, Argentina

**CUADERNOS DE SOFÍA
EDITORIAL**

Dr. Evandro Viera Ouriques
Universidad Federal de Río de Janeiro, Brasil

Dra. María Luisa Zagalaz Sánchez
Universidad de Jaén, España

Dra. Maja Zawierzeniec
Universidad Wszechnica Polska, Polonia

Indización, Repositorios y Bases de Datos Académicas

Revista Inclusiones, se encuentra indizada en:





REX



UNIVERSITY OF
SASKATCHEWAN



Universidad
de Concepción

BIBLIOTECA UNIVERSIDAD DE CONCEPCIÓN



**FOREIGN LANGUAGE ELECTRONIC EDUCATIONAL RESOURCE DEVELOPMENT
ON THE BASIS OF BLENDED LEARNING IN THE PROCESS
OF INFORMATIZATION IN HIGHER EDUCATION**

Ph. D. Angelina I. Dubskikh

Nosov Magnitogorsk State Technical University, Russia
ID ORCID <https://orcid.org/0000-0001-7367-6093>
angelina.dubskikh@mail.ru

Ph. D. Olesya V. Kisel

Nosov Magnitogorsk State Technical University, Russia
ID ORCID <https://orcid.org/0000-0001-8503-9948>
olesja-kisel@rambler.ru

Ph. D. Natalya N/ Zerkina

Nosov Magnitogorsk State Technical University, Russia
ID ORCID <https://orcid.org/0000-0003-0305-3899>
agatik01@mail.ru

Ph. D. Anna V. Butova

Nosov Magnitogorsk State Technical University, Russia
ID ORCID <https://orcid.org/0000-0002-8357-6069>
annb.79@mail.ru

Ph. D. Galina A. Bosik

Nosov Magnitogorsk State Technical University, Russia
ID ORCID <https://orcid.org/0000-0001-5890-0325>
galya.bosik@yandex.ru

Fecha de Recepción: 21 de septiembre de 2020 – **Fecha Revisión:** 10 de octubre de 2020

Fecha de Aceptación: 28 de noviembre de 2020 – **Fecha de Publicación:** 01 de enero de 2021

Abstract

The increasing interest to the development and implementation of electronic educational resources in higher education is caused by a number of factors of the modern higher education system. The rapid process of informatization, reduction of face-to-face academic hours and increase of students' independent work hours demands adaptation of learning methods and forms from a teacher to the new pedagogical reality. In this regard, the problem of methodological support improvement in the educational process is becoming urgent. The aim of the paper is to consider the features of informatization in education process at Nosov Magnitogorsk State Technical University; to underline the stages of electronic educational resources designing that is developed with the basic on principles of blended learning; to formulate the main advantages of electronic educational resources, as well as the disadvantages of its using and tasks that are solved while using electronic educational resources. The research methods were the analysis of didactic and methodological literature on the research problem, systematization and generalization in summing up the results that are relevant for the scientifically based approach formation on the electronic technologies introduction into the higher education system. The study describes the five stages of the education informatization process, which resulted in the formation of teachers' information and communication competence. It is shown that Informatization of education is a long-term and continuous process that requires systematic and concerned actions both from the University administration and its teachers.

Keywords

Informatization of education – Information and communication technologies – e-learning – Moodle

Para Citar este Artículo:

Dubskikh, Angelina I.; Kisel, Olesya V.; Zerkina, Natalya N.; Butova, Anna V. y Bosik, Galina A. Foreign language electronic educational resource development on the basis of blended learning in the process of informatization in higher education. Revista Inclusiones Vol: 8 num Especial (2021): 241-260.

Licencia Creative Commons Attribution Non-Comercial 3.0 Unported

(CC BY-NC 3.0)

Licencia Internacional



Introduction

Universities of the 21st century are in a period of transformation that is radically changing the educational paradigm. According to foreign researchers, we are moving from a paradigm that is based on a textbook to a paradigm that is based on the capabilities of Web 2.0¹. Application of information and communication technologies (ICT) in the educational process is becoming a rapidly spreading practice.

ICT play an important role in improving the quality of education and changing the nature of educational programs in all countries of the world.

E-learning in all its forms (distance, hybrid or blended) takes on a special role in the light of continuity of education. Thanks to the capabilities of this type of training, continuing education programs can reach various target audiences at a convenient time and in a convenient location. Flexible e-learning environment supports updating professionals' knowledge, helping the University to build individual learning paths and study in a convenient mode for students. In this way, e-learning complements, strengthens and improves traditional learning and teaching.

This is the process of providing the education sphere with methodology and practice for the development and optimal use of new ICT that are aimed at implementation of psychological and pedagogical goals of training and up-bringing. This process initiates the University's teacher to meet the following mandatory conditions:

- improving the methodology and strategy for selecting content, methods and organizational forms of training;
- creation of methodological training systems focused on the development of intellectual potential of the trainee, on the formation of skills to acquire knowledge independently, to carry out information and training, experimental research, independent information processing activities;
- creation and application of computer testing, diagnostic methods for monitoring and evaluating students' level of knowledge.

ICT (including information processes and methods of working with information by using computer technology and telecommunications) are widely used in education in Russia² and abroad³.

¹ M. Treadwell, The Future of Learning. Retrieved from https://www.academia.edu/36103044/The_Future_of_Learning y A. Pop, "Quality Standards and the New Technologies in Higher Education Foreign Languages Instruction", Proceedings of the 20 th International DAAAM Symposium, Vol: 20(1) (2009): 1721.

² A. G. Abrosimov, "Teoreticheskie i prakticheskie osnovy sozdaniya informatsionno-obrazovatel'noy sredy vuza". Samara: Izdatel'stvo "Samar", Gosudarstvennaya Ekonomika. Akad (2003) y M. D. Shelkunov; E. M. Nikolaeva & P. S. Kotliar, "Modern University in the New Media (Digital) Environment: Prospects and Risks", Espacios, Vol: 40(15) (2019). Retrieved from <http://www.revistaespacios.com/a19v40n15/a19v40n15p12.pdf>

³ S. Freitas & M. Oliver, "Does E-learning Policy Drive Change in Higher Education? A Case Study Relating Models of Organizational Change to E-Learning Implementation", Journal of Higher Education Policy and Management, Vol: 27(1), (2005); C. M. Than & J. M. Werner, "Designing and Evaluating E-Learning in Higher Education: A Review and Recommendations", Journal of Leadership and Organizational Studies. Vol: 11(2) (2005); C. M. Than & J. M. Werner, "Designing and Evaluating E-Learning in Higher Education: A Review and Recommendations", Journal of Leadership and

Sokolova, Temnikov devoted a number of works to the definition of the concept of "electronic educational resource" and its analysis⁴. They consider the interactivity of information introduction at a qualitatively new level, used to increase the volume of information itself, to increase the variety of ways to introduce information due to new technical capabilities, to provide information in the order that logically unfolds the knowledge of the subject area in front of the student. Marushchak uses the author's interactive software products to expand the cognitive field of students in the field of self-knowledge⁵, to form a positive motivation for the process being implemented. According to Kuklev, electronic educational resources can be used to replace some mechanical actions of the teacher and facilitate the cognitive activity of the student⁶.

Scientists divide electronic educational resources into simple and complex ones. A simple electronic educational resources can be used as a single unit and does not allow division into separate elements that could be used on its own: article; illustration and accompanying text; the book as a set of scanned pages' table of contents; audio recordings; video recordings; presentation in MS Power Point; separate media object of a training course that are uploaded on a specific technology platform.

A complex electronic educational resources consists of elements that can be used separately as independent educational resources: a hypertext document with illustrations that can be divided into independent sections (parts, chapters); an electronic training course on a specific subject (program), uploaded on a specific technological platform or requiring a specific environment (player) for its application; a testing system; a simulator; a thematic catalog

When using electronic educational resources, a student who is learning a foreign language, has a unique opportunity to work with authentic texts, to listen to and communicate with native speakers. Thus, electronic educational resources creates a natural language environment. Accessing to the Internet, the teacher and student can use a huge amount of additional materials that help to enrich the classes with various ideas, tasks and exercises.

Methodology

To achieve these goals, we used the following research approaches and methods:

- a systematic approach in formation of ideas about the phenomenon of virtual learning language environment and its design;

Organizational Studies. Vol: 11(2) (2005): 15-25; D. McConnell, "E-learning in Chinese higher education: the view from inside", Higher Education, Vol: 75 (6) (2018) y A. Sritulanon; P. Chaturongakul & T. Thammetar, "English Speaking Teaching Model in Distance Education", Arab World English Journal, Vol: 9 (3) (2018).

⁴ E. Ya Sokolova, "On-line educational English for special purposes (ESP) complex" Vestnik Tomskogo gosudarstvennogo pedagogicheskogo universiteta-Vestnik TGPU, Vol: 4(119) (2014) y D. A. Temnikov, "Metodologiya razrabotki i graficheskogo oformleniya elektronnykh obrazovatel'nykh resursov. Kazan", Izd-Vo "Brig" (2010).

⁵ I. I. Marushchak, "Innovatsionnye podkhody k podgotovke studentov v vuze", Vestnik universiteta (Gosudarstvennyy Universitet upravleniya), Vol: 17 (2011): 65

⁶ V. A. Kuklev, "Razvitie mobil'nogo obucheniya", Elektronnyye obucheniya v nepreryvnom obrazovanii, Vol: 1 (2016): 1142

- theoretical analysis and synthesis in the study of literature sources, electronic resources for educational purposes, tools for developing e-learning systems;
- a method for implementing the theoretical concepts of the research that were developed by the authors, into the electronic educational resource;
- expert-analytical method for quality analysis of electronic educational resources created by the authors;
- a method of observation of students' speech activity in a foreign language in a virtual learning environment.

Result and discussion

As the experience of many countries shows, if you want any type of e-learning be effective and give benefits, it must be taken care of. In other words, the University should have a business plan for the development of e-learning⁷.

Informatization of foreign language education in higher education institutions

The concept of informatization of education has a systematic character and takes into account the entire set of problems that have arisen. The principles of informatization of education as a process of innovative development of higher education institutions should be universal and dynamic⁸.

This article describes the experience of Nosov Magnitogorsk State Technical University, Russia on the introduction of ICT in the practice of foreign language education.

In our activities we proceed from the following:

- informatization of education is a long-term, continuous and consistent process that requires systematic and interested actions on the part of the administration and teachers;
- in conditions of a poor material and technical base, it is possible and necessary to start informatization of education with the professional development of teachers in the field of ICT;
- technologies of blended learning that combine traditional classes with the possibility of remote access to electronic educational resources are more acceptable in the practice of teaching foreign languages.

When developing the main directions for ICT introduction into the educational process of the Institute, we try to take into account the fundamental didactic principles: systematic and consistent actions for conducting informatization, continuity of information technologies application throughout the entire period of training; comprehensive coverage of the educational process; standardization of quality criteria for electronic educational resources and manuals that are developed on their basis.

⁷ L. K. Huang, "Planning and Implementation Framework for a Hybrid E-Learning Model: The Context of a Part-Time LIS Postgraduate Programme", *Journal of Librarianship and Information Science*, Vol: 42(1) (2010) y T. L. Lee & F. P. Chew, "Maximizing the usage of technology-enhanced teaching and learning of science and mathematics in English program in the Malaysian secondary schools system", *US-China Education Review*, Vol: 7(10) (2010).

⁸ A. M. Aronov y E. N. Belova, "Printsiipy upravleniya innovatsionnoy deyatel'nost'yu universiteta", *Vestnik Tomskogo Gosudarstvennogo Pedagogicheskogo Universiteta*. Vol: 4 (132). (2013).

The program of informatization that is conducted at NMSTU is of great importance for the introduction of e-learning technologies in the practice of foreign languages teaching and university teachers' information competencies building. We understand that informatization of education is a permanent process that has a starting point, but does not have an end point, because information progress does not stand still and develops more rapidly, prompting us to be in the process of constant improvement and development of new technologies and knowledge. However, in each particular case, we can talk about certain stages of informatization and its results.

Stages of informatization	Results and events
Stage 1	Creation of the information site of NMSTU Distant Learning Centre. Creating a General information site of NMSTU. Conducting of distant Olympiads in Foreign Languages
Stage 2	Special Training of teachers to work Moodle. Development of training courses. Distance learning for students.
Stage 3	Mastering technologies of blended learning in Foreign Languages teaching. Elaboration of Web 2.0-based training courses. Further building of teachers' information competence .
Stage 4	Application of blended learning in the system of continuous foreign language education. Development of quality criteria for electronic educational programs. Conduction of electronic educational resources competitions of University teachers.
Stage 5	Working out the issues of e-learning didactics and developing a methodological base for e-learning. Further development of new information technologies. Improvement of the educational environment. Development of legal issues of e-education and copyright.

Table 1
Stages of informatization of the educational process.
(NMSTU experience)

Stage 1. The main result of this stage is related to the creation of sites. Currently, we have one common NMSTU website with complete information about all areas of the Institute's activities: Academic activities – Bachelor and Master Programmes, Scientific activities, International activities, Additional activities, etc. Here you can also find information about NMSTU teachers and student, life, events. The NMSTU website was developed according to the requirements and laws of the University website. It is academic, strict, sustained and informative. Here we do not consider training sites created by teachers to support various educational programs.

Stage 2. The result of this stage was mastering of distance learning technologies, which began with the first distant Olympiad in Foreign Languages. This was followed by the training of part-time students. All this prompted us to build a trajectory of NMSTU teachers

training to work with such an information platform as Moodle⁹. In the system of basic education, e-Learning systems developed on the basis of e-learning shells are successfully used by teachers. The most attractive aspect of using e-learning shells was both the placement of educational material, and the ability to conduct tests and track the dynamics of students' work without much effort. Nevertheless, the use of e-learning shells is a good experience in teachers' ICT competence building.

Stage 3. The result of this stage was the development of blended learning technologies that are based on Google educational services. For many courses in continuing Foreign Language education, blended learning may be a better and more effective alternative to distance learning, because it smooths out the latter's weaknesses¹⁰. In particular, it naturally implements the now popular e-education principle-BYOD: Bring Your Own Device, which in turn reduces the need to replicate educational materials on paper and significantly changes the type of teaching and the style of work of the teacher.

The most important achievement of the second and third stages of informatization was NMSTU teachers' ICT competence building. Our task was to train the entire teaching staff to use a particular e-learning format. Mechanisms for self-learning and the desire to create e-learning courses were launched¹¹. We can even talk about the emergence of a certain teaching community that is ready to help each other in difficult situations. In other words, our teachers have become less dependent on the help of technical people, and find it inside their team. But most importantly, most people have lost their fear and reluctance to use ICT. We have achieved all this by organizing a number of advanced training courses and a series of seminars on ICT.

It should be noted that ICT competence building among a wide range of teaching staff is one of the difficult tasks facing higher education institutions at present. The older the teacher is, the more difficult it is to break the usual stereotypes and the more difficult it is to move to new learning formats for him.

Stage 4. The main task of this stage is to develop criteria for the effectiveness of e-learning and the quality of e-educational resources. On the one hand, the system of indicators helps to unify the work of teachers, on the other hand, this system helps to assess the effectiveness of the stages of informatization. As a result of the analysis of domestic and foreign literature, 4 groups of indicators of EE performance and quality were developed, including indicators focused on the content (course content); indicators focused on teachers who practice certain formats of e-learning; indicators focused on the infrastructure and e-learning environment at the University, as well as didactic and technological indicators of e-learning, focused on students. The logical continuation of this stage was the holding of a number of events, where various aspects of e-learning at the University were discussed at open lectures, workshops, and round tables.

⁹ Belozerova S. I. y O. I. Chuyko, "Opyt ispol'zovaniya LMS Moodle dlya sozdaniya i podderzhki obuchayushchikh kursov". *Sovremennye problemy nauki i obrazovaniya*, (2019). Retrieved from <http://science-education.ru/ru/article/view?id=28448>

¹⁰ I. K. Voytovich, "Mezhdunarodnyy opyt razrabotki effektivnykh sistem elektronnoy obucheniya v universitetakh", *Vestnik Izhevskogo gosudarstvennogo tekhnicheskogo universiteta*, Vol: 4 (2013).

¹¹ A. Abdulkarim; N. Ratmaningsikh y D. N. Anggraini, "Razvitie Civicpedia kak sredstva elektronnoy obucheniya grazhdanskomu obrazovaniyu dlya povysheniya informatsionnoy gramotnosti studentov", *Journal of Social Studies Education Research*. Vol: 9 (3) (2018).

Stage 5. This stage represents the perspective directions of NMSTU activities in the field of e-learning, related to improving the methodological and material-technical base of e-learning, developing its regulatory framework and studying copyright issues.

Peculiarities of E-Learning Resources Development

When developing an electronic educational resource, it should be taken into account that it is not just about translating typographic texts into electronic form, but about creating completely new didactic tools based on (or using) multimedia. An electronic educational resource allows you to ensure high quality education, if you use it correctly. This course is a means of complex influence on the trainee, because it combines such components as: conceptual, illustrative, training and controlling parts. There may also be game components that facilitate understanding and assimilation of the presented material.

Success largely depends on how well the material is organized methodically, where part of the lessons can be implemented with using multimedia courses, and current control can be carried out by using a testing system.

The electronic form of information introduction has a great advantage over traditional methods, including:

- graphic form of presentation, which is well understood by specialists in various fields, especially specialists in technical and natural Sciences;
- use of electronic maps, landscapes, etc.;
- the use of multimedia training programs, which undoubtedly leads to increasing effectiveness of the educational program;
- applying the capabilities of network technologies and extracting information from the electronic network;
- huge time savings.

When developing electronic educational resources, the requirements for this type of work must be taken into account. We have identified the following groups of requirements:

1. pedagogical requirements (didactic principles; methodological requirements; justification of the choice of the subject of the training course; verification of the pedagogical feasibility of use and effectiveness of application);
2. specifications;
3. ergonomic requirements;
4. aesthetic requirement.

General didactic principles of e-learning resources

As in traditional training, modern electronic educational resources are based on well-known didactic principles and rules:

Visualization. In educational psychology, the main methods of learning or cognition of the surrounding world are distinguished: vision, hearing, and abstract thinking. Vision and hearing are the most informative and, accordingly, the most important and most effective in learning. It is based on the use of these important models of information perception that the visibility of learning is built, allowing you to collect maximum visibility in the form of audio,

photo, video and other types of multimedia information, which activates attention and enlivens perception;

Interactivity. During classes, the student must perform a number of interactive actions: viewing and listening to educational material, navigating through content elements, copying them, accessing the help system, answering control questions during the lesson, which helps to increase the effectiveness of consciousness and memory;

Practical orientation. For all sections and training modules, a huge block of practical training modules is presented - practical tasks, training tasks, test questions, laboratory work, which become a universal training for the student;

Availability. The method of material presentation (from simple to complex, from concepts to logic, from knowledge to competence) is available for perception and allows you to carry out training, both with the help of a teacher (or parent), and independently;

Scientific presentation of the material. The content of the course is based on the latest concepts of the Sciences that are integrated in it, including ICT, as the basis of new educational technologies;

The sequence of presentation. The logic of the course content allows you to conduct teaching or self-learning as consistent, advanced or repetitive. The dialogue interface and link system will allow you to initiate any request for completed or subsequent training information, as well as any reference and encyclopedic information;

Modularity and variability of presentation. The material is divided into training modules (based on modules - topics) and micromodules (based on micromodules - concepts). Modularity allows you to build teaching and learning individually, variably, and depending on the learning tasks to be solved.

All conceptual material of the training course, except for reference information, must be presented in multimedia form and voiced by an announcer. In other words, E-Learning Resources is a fairly effective mechanism that promotes faster memorization of material, thanks to the activation of visual, auditory and motor memory. However, the test content of lectures should also be available to the student.

Methodological requirements imply the need to: take into account the uniqueness and features of a particular educational subject; provide for the specifics of the relevant science, its conceptual apparatus, features of methods for studying its regularities; implement modern methods of information processing.

Technical requirements for software for educational purposes. For the effective use of software for educational purposes in the educational process, it is important not only its content, but also its technical parameters.

The main requirements are as follows:

1. the presence of a simplified version (for example, the ability to work without drawings);
2. download speed ("easeness" in Mb of text and graphics, optimal volume).

3. availability of different models of PC, anytime, easy to navigate, the possibility of access via information searching system;
4. high degree of interactivity;
5. use of optimal and modern tools for creating;
6. the quality of the software implementation, including the behaviour when running parallel applications, the speed of response to requests, and the correctness of working with peripherals;
7. adequacy of multimedia tools application, originality and quality of multimedia components;
8. to ensure resilience to erroneous and incorrect actions of the user.

Ergonomic requirements for the content and design of electronic resources make it necessary:

1. to take into account the age and individual characteristics of students, different types of organization of activities, different types of thinking, patterns of recovery of intellectual and emotional performance;
2. to provide an increase in the level of motivation for learning, positive incentives when interacting with the student's electronic resource;
3. to set requirements for depicting information (colour scheme, legibility, clarity of the image), the efficiency of image reading, and the location of text on the screen.

Aesthetic requirements set: matching aesthetic design to the functional assignment of the resource; the chromatic colour appointment and ergonomic requirements; ordering and expressive graphic and figurative elements.

All these requirements should be taken into account when developing an E-Learning Resources for a Foreign Language. In addition, it must have a detailed structure. It should use a huge amount of illustrative material-drawings, pictures, audio, video. Various practical and control measures should also be used to consolidate knowledge, self-control, control and evaluate the acquired knowledge embedded in the electronic textbook (tests, exercises, creative, individual and group tasks). E-Learning Resources should be provided with a system of links (hyperlinks) to various electronic text and graphic educational materials: literary and scientific sources, electronic libraries, dictionaries, reference books and other educational and scientific resources published on the Internet.

It should be noted a number of advantages of using electronic educational resources in a Foreign Language:}

- it is difficult for modern textbooks for foreign language studying to keep up with the times and respond to current news that may be important for students of different specialties. With the help of electronic educational resources, we can create tasks that include the most current and latest news, thereby arousing the interest of students and increasing their professional competence;

- the use of electronic educational resources in the process of foreign languages teaching undoubtedly motivates students, because, firstly, they are familiar with the virtual environment, and secondly, they improve their skills, thereby giving priority to this type of resources;

- electronic educational resources facilitate a teacher's work, because he can conduct part of the classes distantly, the automation of the task evaluation process also saves the teacher's time;

- 100% coverage of students. Each student has the opportunity to use an electronic textbook with computers;

- the ability to store a large amount of information and reduce the time to search for material.

In our opinion there exist few disadvantages of using electronic educational resources: it is not always possible to track whether a particular student completed the task himself or with someone else's help. However, in this case, there exists an opportunity to conduct a test / exam.

These technologies have found their place in foreign languages teaching, and contribute to the solution of a number of tasks, such as:

- ensuring the individualization of the learning process
- increasing a number of hours for foreign language learning, which is very important in the face of classroom hours' reduction on a foreign language, especially at non-linguistic faculties of universities;
- a possibility to give students additional materials.

The presented tasks do not show a complete list of tasks that can be solved with electronic educational resources; this list can and should be continued.

In this article, we would like to share our experience with the use of a modular object-oriented dynamic learning environment (Moodle).

We elaborated a foreign language course for Bachelors of a non-linguistic faculties on the Moodle platform. The training was mixed, in addition to working with the course, students attended face-to-face classes.

Today, most researchers consider blended learning to be the most effective and promising. It combines the principles and technologies of e-education and traditional classroom studies. In these conditions, blended learning is also becoming more diverse, as it becomes possible to conduct simultaneous classes for a distributed audience, when some students are engaged in a university audience with a teacher, some are connected to the lesson on-line (webinar, video conference, skype) from home computers or from a remote audience. Blended learning involves organizing students' independent work through the massive use, that are developed in various environments, virtual and remote laboratory complexes, the partial transfer of certain types of classes in a virtual electronic environment, the organization of project activities in it¹².

¹² G. V. Mozhaeva, "E-learning in High School: Current Development Trends", Gumanitarnaya informatika, Vol: 7 (2013).

Foreign language electronic educational resources designing on the basis on blended learning

A blended learning model is based on the following principles:

- 1) the principle of reverse course design;
- 2) the principle of professional orientation;
- 3) the principle of communicativeness;
- 4) the principle of transparency (assessment of students' and the teacher's work), universality and availability;
- 5) the principle of dynamism / mobility¹³.

Let's consider these principles in detail. The principle of reverse course design means that the development of a course in discipline begins with planning the necessary (desired) result of mastering the discipline, with predicting the required quality of the final product - the competencies that a student should have as a result of successful mastering of the discipline. Thus, the development of the course is carried out in a reverse order - from the result to the content¹⁴.

At the first stage of creating the course as a whole, with accounting the competencies we foresee the final result of mastering the course (competencies determine the result). For example, competencies: "the ability to communicate orally and in writing form in Russian and foreign languages to solve problems of interpersonal and intercultural interaction"; "the ability to self-organize and self-education" suggest that students must have communication skills in Russian and foreign languages, as well as being able to improve their education on their own, which he will be able to learn by working in the E-learning on his own.

At the next stage of the course development, it is necessary to create a system of assessment activities, i.e. determine how it will be possible to evaluate this necessary final result and by what criteria. Basing on the competencies, assessment activities should test and evaluate the following skills: oral monologue / dialogue speech and listening; written speech in a foreign language (letters, essays, presentations, annotations, abstracts, etc.).

Assessment of oral monologue and dialogue speech is carried out at face-to-face classes and final classes on the topic in the format of a presentation or debating. We recommend checking the written skills systematically in the form of comments on the forum, feedback on the work of classmates and classroom audiences at the final events in the form of written assignments. As future specialists have to determine the causes of problems at work and find ways to solve them effectively, invent and improve production, work as a team, not only lexical and grammar tests, but also case-studies, where students have to describe the problem and identify possible causes, are suggested. For example, students are offered a problem such as "Combustion in the laboratory" (you can use your own ideas).

¹³ M. G. Bondarev & A. S. Trach, "Printsipy smeshannogo obucheniya angliyskomu yazyku dlya spetsial'nykh tseley", *Izvestiya Yuzhnogo federal'nogo universiteta. Tekhnicheskie nauki*, Vol: 10 (2013).

¹⁴ A. G. Shirokolobova y I. V. Gubanova, "Content and Structure of the Electronic Teaching and Methodical Complex of the Discipline"Foreign Language", *Filologicheskie nauki. Voprosy teorii i praktiki*, Vol: 1 (67) (2017).

The student must solve the problem in the form of a presentation, report or essay in the classroom. Thus, students develop analysis skills, determining the causes of problems, developing possible solutions on the basis of the data obtained, and also form teamwork as a team in future professional activities, which corresponds to the second principle.

The third stage is aimed at designing the structure of the course in accordance with the work program of the discipline, i.e. techniques, methods of achieving the goal (final result) and evaluation criteria that are used in the course. At this stage, it is necessary to divide the types of activities into classroom and independent work, i.e. which types of activities will be presented in the electronic environment, and which - in the classroom with the teacher. The teacher, forming the structure of the course, should not forget about the principle of interchangeability / flexibility.

The principle of professional orientation is implemented by introducing the lexical material that is necessary for future professional activity, the necessary literature for communication and reading in the framework of future professional activity¹⁵. A foreign language course includes a number of topics related to future professional activities: "Engineering", "Professional Competences of a Future Engineer", "Engineering Education", "Specialization of Engineers", "Innovation in Engineering". The authors of the course select content in accordance with the subject of the course, on the basis of which the vocabulary is compiled, tasks and cases are developed to form, develop and train the necessary skills¹⁶.

In our opinion, the most difficult thing when creating a course and working in E-learning is to implement the third principle - the principle of communicativeness, because there does not exist direct communication with the teacher in the electronic environment, communication takes place indirectly, with a time delay.

We believe that teachers' video presentation will help to bring the teacher closer to the students and create an element of "live" communication in the electronic environment. We recommend starting to work on the course with an audience meeting. A teacher meets the student group and they meet each other. After the lesson, the teacher enrolls students on the electronic course, where they can once again listen to the instructions for working with the course and communicate with the participants. This is carried out in the form of a video message on a forum / chat that are specially created as part of the course, which in our case is called "Meet your tutor and fellow students", where a video presentation of a teacher is downloaded out in which he introduces himself, tells students about himself, his personal qualities, achievements, interests and will invite students to do their first creative assignment - their video presentation.

As a support for the first task, students are offered a questionnaire / algorithm in the form of questions that must be answered as part of the presentation, each member of the group can add their own questions, which can also be answered by other members of the group.

¹⁵ L. Yu. Kaplina, "Professional'no-orientirovanoe obuchenie inostrannomu yazyku studentov neyazykovykh vuzov s ispol'zovaniem gipertekstovykh tekhnologiy." Vestnik Samarskogo gosudarstvennogo universiteta, Vol: 10(50), (2006).

¹⁶ G. V. Shuvalova, "Speech Exercises and Methods of Text Use in Professional Language Classes with Studies of Technical Specialties", Inostranny yazyk i mezhkul'turnaya kommunikatsiya v razvivayushchemsya obrazovatel'nom prostranstve: teoreticheskie i prikladnye aspekty: materialy i materialy Vserossiyskoy nauchno-prakticheskoy zaochnoy konferentsii, Tomsk, (2008).

We believe that this type of the task will help students to show their abilities at a large scale, because it is psychologically difficult for many students to speak a foreign language (they have insufficient knowledge and they are afraid to make a mistake and find themselves in an awkward situation in front of the teacher and other students of the group who are unfamiliar to him, strangers). Support materials are also offered to help students. All presentations are placed on the course forum, i.e. the teacher and students of the group get an idea of each other.

Students give a “like” to presentations that they liked, but do not rate them in terms of correctness / incorrectness. Each forum participant needs to ask two or three clarifying questions about what they like / dislike, their favorite movies, Internet sites, etc. to the teacher and a student of the group, which is selected by the teacher, so that each participant will be in the role of asking questions and answering and to avoid a situation where some will answer most of the questions, and someone will not receive a single one. In turn, the teacher will have the opportunity to pre-assess the level of preparation of the group in a foreign language. Communication with students can be maintained in the form of online consultations.

Professional-oriented foreign language training is carried out on the text content basis when vocabulary is selected in accordance with the subjects of the disciplines are studied in 1-3 semesters, as well as “Foreign language”. The selection of appropriate texts for independent reading and translation (tasks for vocabulary which are based on the texts, comprehensive check of the content, generalization, a summary of the content) allows you to expand the vocabulary and at the same time receive additional information on future professional activities in a foreign language and increase motivation for the profession. In the future, students will be able to prepare essays and reports at practical classes of the above mentioned disciplines, choose the most suitable form for presenting the project, write articles including in a foreign language. When selecting the subjects of the discipline “Foreign Language” and forming a lexical base for the future professional activities of students, it is necessary to work closely with the teachers of the graduating departments who manage the research work and the final qualification / diploma work of students. They can also recommend sources necessary for research that can be used to create E-Learning Resources assignments.

In case of questions on the course, students have an opportunity to ask questions and video questions. If the questions are relevant for 30% of the student group, the teacher posts an answer / video response on the forum; in cases when the question is relevant only for one or two students, the teacher selects an expert from the student group who helps those who do not understand the material. In the case of a successful solution to the problem, the student-expert receives additional points to his assessment of the work with the course.

This interaction is carried out on the forum / chat FAQ (frequently asked questions), which is a necessary component of each module of the course that allows students to communicate with each other, discuss emerging issues, problems and successfully do tasks with teachers' assistance.

The answers are posted on the forum / chat of each topic / module of the course, where they can be discussed, if necessary, asked for clarifying questions.

It is necessary to supply tasks with explanations in which the teacher instructs in detail how to complete the task, what should be given special attention to, what to do if the task fails, what lexical and grammatical materials you need to study, necessary materials, links, etc., and also create a forum / chat for students to interact with each other and with the teacher.

It is reasonable to complete work on the course in the form of a graduation module / block of the forum, where students post their final work. The teacher analyzes the work that succeeded / failed, the students talk about what they learned, their wishes for the content of the course.

Each module of the course should contain video messages, where the teacher welcomes students, explains goals and objectives, gives step-by-step instructions and / or recommendations for completing assignments (subsequently more and more detailed, i.e. giving students more independence, developing skills and independent work and in the future, the acquisition of the necessary skills of self-educational activity), and in the future - to complicate tasks.

At the end of the video message, students can be invited to comment on the statements of famous people about engineers and / or engineering, for example: "Scientists dream about doing great things. Engineers do them. James A. Michener - What do you think about it? Share your thoughts, suggest your quotes to discuss, or How do you understand it?". This approach allows you to maintain the principle of communicativeness and at the same time professional orientation, giving students the opportunity to express their opinion and communicate informally at the forum with the teacher and other students. Students themselves will be willing to offer quotes and memes for discussion on topics of interest to them, and the teacher will take part in the discussion, changing roles with students. The teacher downloads in advance the clichés which are necessary for reasoning, discussion. Each student's works are downloaded on the forum where the teacher checks them and other students can see them and evaluate the quality of the work they performed according to the certain criteria. It is imperative to establish the criteria clearly for evaluating each task / type of work so that a student knows how they will evaluate his work in the electronic environment and what are the evaluation criteria.

Students' work on the course is estimated by the following indicators:

- 1) the assignment must be done on time (the assignment is completed on time) (max. 10 points), in case of a reasonable reason, students are given extra time, which is also limited by the deadline;
- 2) volume and quality of the assignment (compliance with the requirements) (max. 10 points). The volume of a written assignment or class room assignment is at least 15 sentences, it is necessary to use the studied on the topic vocabulary in the sentences and the studied in the module grammatical structures;
- 3) activity of work on the course not only completed tasks are taken into account, but also help and assistance to other members of the group, suggestions on the type of tasks or their design, suggestion of their topics, quotes for discussion (max. 10 points);
- 4) module testing (max. 10 points);
- 5) extra task from an additional module (max. 10 points).

For example, in our course the minimum required number of points to get the credit is 40. If the student wants to improve his grade, then he must do the tasks from the additional module¹⁷.

Communication teacher - student / students, student-student is conducted in forums, in chats that are available / open to all members of the group. In turn, the the institution authorities and the parents of the students, if they want, can monitor the progress of the student, i.e. the principle of transparency of work and evaluation in the electronic environment is observed.

The principle of universality, interchangeability / flexibility and accessibility in blended learning means that classroom and independent work in the electronic environment can complement and / or replace each other when students are having problems with mastering the material / completing tasks in the electronic environment, this type of activity will be transferred to face-to-face classes, and vice versa, if the work at face-to-face classes is successful and there is no need for further teacher participation, students are directed to the electronic environment, which allows them to take into account the characteristics of different groups and individual characteristics of students. In addition, students can continuously master the discipline, being in any place at any time that is convenient for them. If they cannot attend classes, they continue studying the discipline without interruption in an electronic environment where the teacher can control and, if necessary, set up the students' work. Tasks for independent work are checked by the teacher in the audience or at consultation time at any convenient time for everyone.

The electronic environment allows you to not interrupt / maintain interaction with other students of the group. Students can start their studies from any semester (in case they recover). The previous parts of the course allow you to study the missed stages at an individual pace, if necessary, referring to the consultation of the teacher and / or other students of the group. In the electronic environment, both duplicate tasks are offered, which allow students to consolidate / improve the knowledge that was give at face-to-face classes, and tasks, which allow to expand / deepen knowledge on the topic.

Conclusion

Application of new IT in education is one of the most important aspects of improving and optimizing the educational process.

NMSTU main tasks of the informatization process are:

- information culture building for teachers and students;
- creation of conditions and opportunities for continuous training of teachers in the field of ICT;
- ICT introduction into all areas of university educational activity in the field of basic and additional education on the basis of life-long learning education;
- building of material and technical base that supports teachers in ICT application, that meets the current state of technological progress, but requires financial costs;
- elaboration of effective regulatory framework for the informatization of education.

¹⁷ A. G. Shirokolobova y I. V. Gubanova, "Content and Structure of the Electronic Teaching and Methodical Complex of the Discipline"Foreign Language", *Filologicheskie nauki. Voprosy teorii i praktiki*, Vol; 1 (67) (2017).

Informatization of the education system is accompanied with studies of issues on electronic educational resources application in the educational process and the implementation of the results of these studies in educational practice.

Analyzing the experience of E-Learning Resources application in the classroom, we can state that the use of ICT allows you to:

- provide positive learning motivation;
- conduct lessons at a high aesthetic and emotional level (music, animation);
- provide a high level of differentiation of training (almost individualization);
- increase the amount of work performed in the lesson by 1.5 - 2 times;
- improve knowledge control;
- organize the educational process rationally, increase the effectiveness of the lesson;
- build the skills of research activities;
- provide access to various reference systems, electronic libraries, and other information resources.

The potential of electronic educational resources creates the foundation for its practical implementation for studying university disciplines, in particular, "Foreign Language".

Technical means have long been successfully used in language education, and thanks to modern information technologies, an extensive range of open educational resources and an abundance of authentic material, the creation of E-Learning Resources, meeting the needs of students and the focus of the course, does not require special efforts from a foreign language teacher.

Thus, we are dealing with the generation that has been surrounded by digital technologies since birth, with the so-called "digital natives"¹⁸, who are used to interactive activities, quick access to information, and performing several tasks at the same time, learning a foreign language using electronic educational resources is the most effective. Moreover, it is possible to work with them with any mobile device that has internet access. It should be noted that the advantage of using E-Learning Resources is that independent work can be monitored and evaluated by the teacher. Also, the use of distance learning courses on the basis of educational platforms (for example, Moodle) allows you to complement classrooms activities and helps to optimize teaching a foreign language in non-linguistic universities.

Foreign language teaching on the principles of blended learning in E-learning has a significant potential for self-educational activity, helps to transform a student from a passive object into an active subject, allows you to expand your vocabulary, teaches you how to work with terminology, improves writing, speaking, reading and listening skills, gives the ability to take into account the individual characteristics of temperament, memory, student attention, builds motivation for educational and cognitive activity. It allows us to solve the main task of teaching a foreign language in a non-linguistic university to develop communication skills.

¹⁸ M. Prensky, "Digital Natives, Digital Immigrants", On the Horizon, Vol: 9(5) (2001). Retrieved from <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>

References

Abdulkarim, A.; Ratmaningsikh, N. y Anggraini, D. N. "Razvitie Civicpedia kak sredstva elektronnoy obucheniya grazhdanskomu obrazovaniyu dlya povysheniya informatsionnoy gramotnosti studentov". *Journal of Social Studies Education Research*. Vol: 9 (3) (2018): 45-61

Abrosimov, A. G. "Teoreticheskie i prakticheskie osnovy sozdaniya informatsionno-obrazovatel'noy sredy vuza". Samara: Izdatel'stvo "Samar". Gosudarstvennaya Ekonomika. Akad. (2003).

Aronov, A. M. y Belova, E. N. "Printsipy upravleniya innovatsionnoy deyatelnost'yu universiteta". *Vestnik Tomskogo Gosudarstvennogo Pedagogicheskogo Universiteta*. Vol: 4 (132) (2013). 9-13.

Belozerova, S. I. y Chuyko, O. I. "Opyt ispol'zovaniya LMS Moodle dlya sozdaniya i podderzhki obuchayushchikh kursov". *Sovremennye problemy nauki i obrazovaniya*, (2019). Retrieved from <http://science-education.ru/ru/article/view?id=28448>

Bondarev, M. G. & Trach, A. S. "Printsipy smeshannogo obucheniya angliyskomu yazyku dlya spetsial'nykh tseley". *Izvestiya Yuzhnogo federal'nogo universiteta. Tekhnicheskie nauki*, Vol: 10 (2013): 41-48.

Butova, A. V.; Dubskikh, A. I.; Kisel, O. V. & Chigintseva, E. G "Electronic Educational Environment Moodle in English Language Training". *Arab World English Journal*, Vol: 10(1) (2019): 47-55.

Dubskikh, A. I. "Osobennosti professional'no-orientirovannogo obucheniya inostrannomu yazyku v tekhnicheskoy vuzovskoy sredy". *Aktual'nye problemy sovremennoy nauki, tekhniki i obrazovaniya: tezisy dokladov 77-j Mezhdunarodnoy nauchno-tekhnicheskoy konferencii*. Magnitogorsk: Publishing House Magnitogorsk. state tech. UN-TA im. G. I. Nosova. 2019.

Freitas, S. & Oliver, M. "Does E-learning Policy Drive Change in Higher Education? A Case Study Relating Models of Organizational Change to E-Learning Implementation". *Journal of Higher Education Policy and Management*, Vol: 27(1) (2005): 81-95.

Huang, L. K. "Planning and Implementation Framework for a Hybrid E-Learning Model: The Context of a Part-Time LIS Postgraduate Programme". *Journal of Librarianship and Information Science*, Vol: 42(1) (2010): 45-69.

Kaplina, L. Yu. "Professional'no-orientirovannoe obuchenie inostrannomu yazyku studentov neyazykovykh vuzov s ispol'zovaniem gipertekstovykh tekhnologiy". *Vestnik Samarskogo gosudarstvennogo universiteta*, Vol: 10(50) (2006): 42-49

Kisel, O. V. "Obuchenie chteniju na osnove professional'no-orientirovannykh tekstov" In: *Aktual'nye problemy sovremennoy nauki, tekhniki i obrazovaniya: tezisy dokladov 77-j mezhdunarodnoy nauchno-tekhnicheskoy konferencii*. Magnitogorsk. 2019. 380-381.

Kisel, O. V.; Dubskikh, A. I.; Lomakina, E. A.; Butova, A. V. & Potrikeeveva, E. S. "Differentiated Approach as A Factor on Development of Students' Professional Communicative Competence". *Amazonia Investiga*, Vol: 8 (19), (2019): 287-297.

Kochisov, V. K.; Gogitsaeva, O. U. & Timoshkina, N. V. "Elektronnyy obrazovatel'nyy resurs kak novyy pedagogicheskiy instrument v razvitii mezhdistitsiplinarnykh svyazey". *Obrazovatel'nye tekhnologii i obshchestvo*, Vol: 18 (4) (2015): 613-628.

Kuklev, V. A. "Razvitie mobil'nogo obucheniya". *Elektronnye obucheniya v nepreryvnom obrazovanii*, Vol: 1 (2016): 1142-1149.

Lee, T. L. & Chew, F. P. "Maximizing the usage of technology-enhanced teaching and learning of science and mathematics in English program in the Malaysian secondary schools system". *US-China Education Review*, Vol: 7(10) (2010): 87-97.

Levin, M. V. & Sosenushkin, S. E. "Standardization of Requirements for Electronic Educational Resources, Taking into Account Individual Needs and Preferences of Students". *Otkrytoye obrazovaniye*, Vol: 1(108) (2015): 33-36.

Li, L. & Walsh, S. "Technology uptake in Chinese EFL classes". *Language Teaching Research*, Vol: 15(1) (2010): 99-125.

Marushchak, I. I. "Innovatsionnye podkhody k podgotovke studentov v vuze". *Vestnik universiteta (Gosudarstvennyy Universitet upravleniya)*, Vol: 17 (2011): 65-67.

McConnell, D. "E-learning in Chinese higher education: the view from inside". *Higher Education*, Vol: 75 (6) (2018): 1031-1045.

Mozhaeva, G. V. "E-learning in High School: Current Development Trends". *Gumanitarnaya informatika*, Vol: 7 (2013) 126-138.

Pop, A. "Quality Standards and the New Technologies in Higher Education Foreign Languages Instruction". *Proceedings of the 20 th International DAAAM Symposium*, Vol: 20(1) (2009): 1721.

Prensky, M. "Digital Natives, Digital Immigrants". *On the Horizon*, Vol: 9(5) (2001). Retrieved from <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>

Shelkunov, M. D.; Nikolaeva, E. M. & Kotliar, P. S. "Modern University in the New Media (Digital) Environment: Prospects and Risks". *Espacios*, Vol: 40(15) (2019). Retrieved from <http://www.revistaespacios.com/a19v40n15/a19v40n15p12.pdf>

Shirokolobova, A. G. y Gubanova, I. V. "Content and Structure of the Electronic Teaching and Methodical Complex of the Discipline "Foreign Language". *Filologicheskie nauki. Voprosy teorii i praktiki*, Vol: 1 (67) (2017): 212-216.

Shuvalova, G. V. "Speech Exercises and Methods of Text Use in Professional Language Classes with Studies of Technical Specialties" *Inostranny yazyk i mezhkul'turnaya kommunikatsiya v razvivayushchemsya obrazovatel'nom prostranstve: teoreticheskie i prikladnye aspekty: materialy i materialy Vserossiyskoy nauchno-prakticheskoy zaochnoy konferentsii*, Tomsk, (2008): 160-164.

Sokolova, E. Ya. "On-line educational English for special purposes (ESP) complex". Vestnik Tomskogo gosudarstvennogo pedagogicheskogo universiteta-Vestnik TGPU, Vol: 4 (119) (2014): 59-63.

Sritulanon, A.; Chaturongakul, P. & Thammetar, T. "English Speaking Teaching Model in Distance Education". Arab World English Journal, Vol: 9 (3) (2018): 418-433.

Temnikov, D. A. "Metodologiya razrabotki i graficheskogo oformleniya elektronnykh obrazovatel'nykh resursov. Kazan": Izd-Vo "Brig" (2010).

Than, C. M. & Werner, J. M. "Designing and Evaluating E-Learning in Higher Education: A Review and Recommendations". Journal of Leadership and Organizational Studies. Vol: 11(2) (2005): 15-25.

Treadwell, M. The Future of Learning. Retrieved from https://www.academia.edu/36103044/The_Future_of_Learning

Voytovich, I. K. "Mezhdunarodnyy opyt razrabotki effektivnykh sistem elektronnoy obucheniya v universitetakh". Vestnik Izhevskogo gosudarstvennogo tekhnicheskogo universiteta, Vol: 4 (2013): 170-173.

**REVISTA
INCLUSIONES** M.R.
REVISTA DE HUMANIDADES
Y CIENCIAS SOCIALES

**CUADERNOS DE SOFÍA
EDITORIAL**

Las opiniones, análisis y conclusiones del autor son de su responsabilidad y no necesariamente reflejan el pensamiento de la **Revista Inclusiones**.

La reproducción parcial y/o total de este artículo debe hacerse con permiso de **Revista Inclusiones**.