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STUDENTS' ENGAGEMENT IN BLENDED LEARNING: DIGITAL EDUCATIONAL RESOURCES AS AN INTERACTIVE APPROACH

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Abstract

This study investigates engagement of the L.N.Gumilyov Eurasian National University (ENU, Kazakhstan) students in Blended Learning (BL) during the academic year of 2019-2020. The global education and scientific world community has been faced the pandemic uncertainty situation. In times of emergency crisis the sphere of education and science is becoming more essential than ever before.

However, a plethora of crucial specific opportunities to progress digital transformation of educational system at ENU through effective and productive use of innovative digital educational resources (DERs) as well as technologies were presented to faculty members and students.

Therefore, implementation of DERs as an interactive approach in Foreign Language teaching and learning is worth to be noted. Blended learning environment had the result of radical advancement of technological processes which facilitated learning and improved students' academic performance motivating a longer lasting effect in achieving new knowledge, understanding and skills.

Moreover, perceived new knowledge either online or offline made positive influence on both cognitive and emotional state of students.

Key words: Blended Learning, Digital Educational Resources, knowledge, cognition, skills.

Introduction

The current rapidly developing world encourages young generation of the 21ˢᵗ century to be aware of good knowledge understanding in order to be competitive globally. The Ex-President of the Republic of Kazakhstan N.Nazarbayev initiated to declare the year 2019 as the "Year of Youth". In his speech N.Nazarbayev stressed *"... the new generation of our country that I see is the greatest achievement of Kazakhstan"*[1]. He reminded the youth that today all the spheres of life as education, work, family and *"... even the way we communicate..."* [1] are subject to significant changes. *"All these will fundamentally change the pathway of development of the whole world and, **definitely,** Kazakhstan. We are witnessing the birth of a new global civilization with a digital society and a knowledge-based economy"* [1].

In the terms of digital education BL with DERs maintenance as an approach incorporates online educational resources and prospect for interaction online.

The purpose of this study is to find out the particular challenge how students are able to benefit DERs successfully.

Students are meaningful partners of academic process. Mark Prensky, the educational expert noted "Our students have changed completely. Today's students are no longer the people our educational system was designed to teach"[2].

Hence, DERs including creative stock of knowledge develop students' intelligence and influence on their competence to keep being involved productively with learning and being engaged in BL.

Literature Background

A group of scholars consider that BL is a potential outcome of advanced technology based on learning system [3]. The researchers Min Hu, Karen Arnesen, Michael K. Barbour and Heather Leary who are the representatives of different United States Universities in 2019 analyzed 51 articles of 123 authors who published these articles in the *Journal of Online Learning Research(JOLR)* between 2015 and 2018 inclusive [4]. These research experts pinpoint that the article topics have been focused on comparing either how students performed based on delivery model of their distance/online learning or components of teaching and learning online [4]. According to the research experts mentioned above, BL environments consist of different location including United States (42 articles), Turkey (1), Brazil (1), India (1), Multiple countries (1), and No focus/Unable to determine (5)[4]. Thus, the articles which were published in *JOLR* demonstrate that Higher Education researchers from the USA are interested in investigation of BL issue rather than scientists from other countries. On the other hand, in the *Education Research International* journal the researchers from different countries publish the articles concerning BL. Thelal Iqab Oweis from German Jordanian University, Jordan suggested that BL has much benefit and can be described as a way to organize information, attitudes, and educational experiences that are provided for the learners through multimedia offered by modern or information technologies [5]. Various journals exist all around the world. One of them is *International Journal of Educational Technology in Higher Education.* Charles Dziuban, Charles R. Graham, Patsy D. Moscal, Anders Norberg and Nicole Sicilia [6] in their article examined, firstly, success and withdrawal rates in blended learning online courses over an extended time period at the University of Central Florida. Secondly, the investigators examined the students' end-of-course ratings of blended learning. These researchers findings showed the students' perceptions of their learning environments effectively ruled to helping them achieve course

objectives; creating an environment that helped students learn, communicate ideas and information [6].

Therefore, it is considered that BL with DERs maintenance as an approach provides a great deal of advantages in the ways of integrating online/offline learning activities and resources. BL with DERs maintenance facilitates students with a unique flexible learning experience, because they can access and engage with their educational program from anywhere and at any time [3].

Challenges ⟶ Prospect (Strategies) ⟶ Students' Engagement in BL

DERs are an integral part of the educational process in BL. In order to progress digital transformation of educational system at ENU through effective and productive use of innovative DERs, and both motivate and facilitate students' academic performance, Foreign Languages Department lecturers of the Philology Faculty at ENU constantly practice in use the infinite Internet resources. Therefore, implementation of DERs as an interactive approach in Foreign Language teaching and learning is worth to be noted.

In this study we were challenged:

- to create interactive blending student-centered environment;

- to conduct live flexible interaction;

- to find the balance between innovation and production with high quality DERs content. Therefore, according to these challenges arisen in the process of learning we proposed the model which is based on Blended Learning (online/offline) settings.
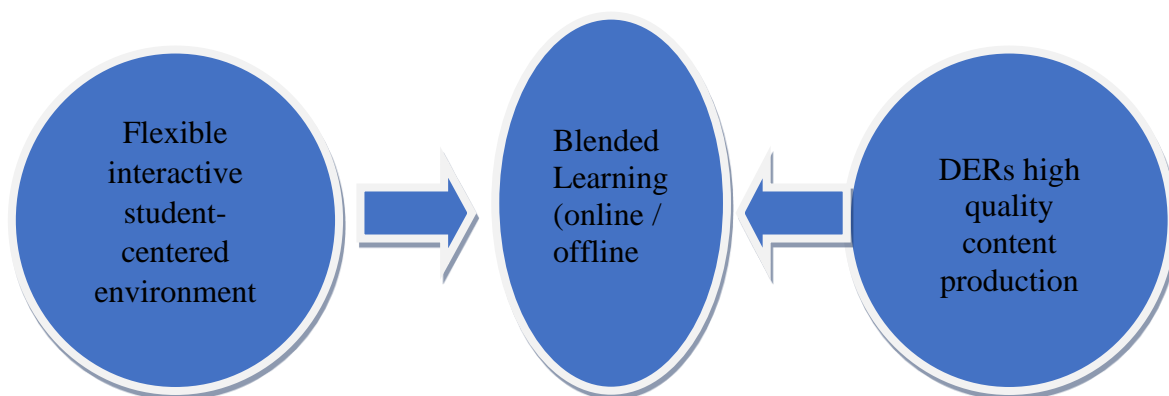

Figure 1. Blended learning (online/offline) settings model

Blended learning (online/offline) settings model illustrates three closely related to each other options in BL with DERs maintenance.

Blended Learning (online/offline)
- Teachers constantly maintain assistance and scaffolding at critical times;
- Video-practical lessons implementing ZOOM, MicrosoftTeams (Learning Content Management System (LCMS)), Google Classroom (https://classroom.google.com),
- Mobiles (WhatsApp video calls) allow students from various parts and regions of Kazakhstan to communicate with the teachers;
- Practical lesson tasks are shared through LCMS: Platonus, Moodle and MicrosoftTeams.

- Online Power Point presentations recorded with BandiCam (https://www.bandicam.com)
  maintenance are available to support participants, students can visualize them and cooperate, carrying out mutual discussions;
- Video-practical lessons settings are recorded by the teachers, that is the students have a great opportunity to participate (watch recording) at different times.

Flexible interactive student-centered environment
- Listening Tasks: audio, topical video-films can be played, repeated, paused, stopped in an appropriate way by students anytime and anywhere;
- Links, hyperlinks to videos, films are provided to students through Google Disc;
- Learning materials, videos, audios can be downloaded by students in their own devices;
- Social networking tools are used to share learning materials;
- BL tasks are created by teachers in the way of providing convenient opportunity for students to shift and become more self-organized;
- Students have responsibility to set the objectives of the lessons;
- Students are allowed to suggest new questions on the discussed topics.

DERs high quality content production
- DERs are designed to meet students English knowledge level (A2,B1,B2);
- References are offered for facts and information discussed at the lessons;
- Synchronization of the topical learning video with EdPuzzle (https://edpuzzle.com) fulfilling creative learning task along the way of watching and listening;
- Tests are designed in Google Disc- Google Forms;
- Socrative(www.socrative.com) is quite helpful to create Quizzes;
- QR Code Reader Application (https://www.qrcoder.ru) presents quick response to get learning information;
- Mentimeter (https://www.mentimeter.com) as a DER provides quick feedback right at the very end of the lesson;
- QuizSlides (https://www.quizslides.co.uk) as an innovative cloud DER allows to create online tests using Power Point slides;
- MicrosoftTeams as LCMS performs a plethora of availability for students to scrutinize the educational learning material;
- Electronic assessment is used for test and quizzes.

The study sample involved 142 first and second year students of ENU, 54 male and 88 female (38% and 62% respectively). These students represented different majoring directions as well as faculties like "Biotechnology", "Ecology", "Geography" (Natural Sciences Faculty); "Tourism", "State Finance"(Faculty of Economy); Industrial and Civil Construction (Architecture and Construction Faculty).

During the academic year lessons were conducted face-to-face, online/offline according to the time table, three academic hours per every week, fifteen weeks in one term. The students under research clearly understood the objectives of every practical lesson. Students were provided to watch the videos related to the topic synchronized with EdPuzzle (https://edpuzzle.com) and fulfilling creative learning task along the way of watching and listening.

Then, QR Code Reader Application (https://www.qrcoder.ru) presented quick response to get access to reading tasks and test on these reading tasks were carried out in Google Forms using their own accounts in Google Disc. Furthermore, to get vivid and clear result of the learnt topic Socrative (https://www.socrative.com), a digital resourceincreasingly and cognitively encouraged students to learn and earn benefits from DERs. Moreover, to highlight the "Word of the Day" and to understand the vision of peers on the key words of the topic, Mentimeter (https://www.mentimeter.com) as a DER increased curiosity of engaged students in learning process.

Students Feedback

To investigate learning outcomes two research questions were established to discuss critically.

1. What digital educational resource crucially motivated students to be effectively engaged in Blended Learning?

2. What are positive as well as negative effects in Blended Learning?

The overall answer performance of participants included a total number of 142 students under research.

According to the students vision on DERs issue all the digital resources which we applied during the academic year crucially inspired them to learn English Language effectively, developed language skills and increased their confidence despite occurring global challenges. Identically, the second research question determined no negative effect in Blended Learning.

Nevertheless, some impressive ideas are considered as a students' feedback to these research questions. These ideas are presented in the table below.

#	Impressive Ideasof Students on DERs issue in BL	Number of Students
1	DERs upgrade knowledge	16
2	DERs benefit to achieve goals in learning	15
3	Interactive lessons	14
4	BL encourage to be self-organized	11
5	DERs are effective tools	11
6	Teachers used creative materials	10
7	DERs increase interest to learn	10
8	DERs generate positive impact	9
9	Lessons are well-organized	9
10	Student-centered learning	7
11	DERs attract interest and motivate to learn more	7
12	BL is a flexible learning	7

13	DERs provide online effective evaluation	5
14	No chance to waste time in BL	5
15	DERs develop skills	3
16	Convenient to acquire knowledge in BL	1
17	DERs help improve relationships between group mates	1
18	DERs advance collaborative mutual communication	1

Total number: 142

Table 1. Impressive Ideas of Students on DERs issue in BL

Conclusion

Blended learning environment was supported by effective DERs. Therefore, the result of radical advancement of technological processes which facilitated learning and improved students' academic performance motivated a longer lasting effect in achieving and progressing new knowledge, understanding and skills.

References

1.https://www.inform.kz/ru/nursultan-nazarbaev-dal-start-godu-molodezhi-v-kazahstane_a3490787

2. A.Smrikarov, T.Vassilev. Handbook of Innovative Educational Technologies (Part One). - Co-funded by the Erasmus+ programme of the European Union, 2020. P.2.   ISBN 978-954-712-787-6. http://hiedtec.ecs.uni-ruse.bg

3. Asif Irshad Khan, Noor-ul-Qayyum, Mahaboob Sharief Shaik, Abdullah Maresh Ali, Ch.Vijaya Bebi. Study of Blended Learning Process in Education. I.J.Modern Education and Computer Science, 2012, 9, 23-29// Published Online September 2012 in MECS (http://www.mecs-press.org/). DOI: 10.5815/ijmecs.2012.09.03

4. Min Hu, Karen Arnesen, Michael K. Barbour,Heather Leary. A Newcomer's Lens: A Look at K-12 Online and Blended Learning in the Journal of Online Learning Research. Journal of Online Learning Research (2019)5(2),123-144

5. Thelal Iqab Oweis. Effects of Using a Blended Learning Method on Students'Achievement and Motivation to Learn English in Jordan: A PilotCase Study. Hindawi/ Education Research International. Volume 2018, Article ID 7425924,7 pages. https://doi.org/10.1155/2018/7425924

6. Charles Dziuban, Charles R. Graham, Patsy D. Moscal, Anders Norberg and Nicole Sicilia. Blended learning: the new normal and emerging technologies. International Journal of Educational Technology in Higher Education, 2018, 15:3. DOI 10.1186/s41239-017-0087-5

7. A.Olsen, K.J.Spring, J.Young, R.E.West. International Review of Research in Open and Distance Learning, 2002-2011.Educational Technology Research Journals: Educational Technology , 2013. 53(4), P.43-47.

8. https://classroom.google.com

9. https://www.bandicam.com

10. https://edpuzzle.com
11. https://www.qrcoder.ru
12. https://www.qrcoder.ru
13. https://www.socrative.com
14. https://www.mentimeter.com