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Review research paper

THE EFFECTIVENESS OF BLENDED LEARNING IN ENGLISH TEACHER TRAINING

Olena Ihnatova, Olesia Zhovnych, Larysa Drobakha

Vinnytsia State Mykhailo Kotsiubynskyi Pedagogical University, Ukraine

Abstract. *This research paper presents a study that was carried out with future teachers of foreign languages from three different departments of Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Ukraine. The pandemic has had an impact on teaching. The education sector reacted quickly to this situation and implemented e-learning in institutional facilities. The course "Digital technologies in foreign languages teaching: theories, methods, application", which is the subject of the study presented here, was implemented. In the conception of blended learning, the course provides future teachers with the necessary skills for the teaching practice of digital tools by learning to use these technologies in a didactically sensible way. The course concept provides a hybrid learning arrangement in which the effectiveness and flexibility of e-forms of learning are combined with the social aspects of face-to-face communication. The purpose of the study was to identify the effectiveness of the integration of digital technologies in the process of learning foreign languages, the benefits of digital teaching and changes in the level of digital literacy of students. In addition, the influence of individual digital competencies, personal life situations and previous experience with similar types of courses were analyzed in terms of the effectiveness and acceptance of the Blended learning concept. The course lasted half a year; 120 students chose it. The participants are students of foreign language (English) of the three cooperating departments (Department of Methods of teaching foreign languages, Department of English Philology, Department of Translation and multicultural communication). The potential of communication technologies and teachers' digital competence is highlighted. The research design is based on the triangulation of quantitative and qualitative methods. The results of the survey of 120 respondents from three groups revealed, firstly, the level of their motivation to register for the course; secondly, the level of their educational success, taking into account the acquired professional and digital competencies; thirdly, the level of difficulty of their cooperation in the digital based communication.*

Key words: *blended learning, digital competence, educational platform, foreign languages, higher education, hybrid communication, teacher training*

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Corresponding author: Olesia Zhovnych, Vinnytsia State Mykhailo Kotsiubynskyi Pedagogical University, Ukraine
E-mail: olesia.zhovnych@vspu.edu.ua

1. INTRODUCTION

The main expectation from e-learning and blended learning concepts is a time-flexible education, which increases the capacity of solving resource problems at Ukrainian universities. As universities have moved toward blended learning environments (Graham, 2018; Sun & Chen, 2016), students, teachers, and administrators, are facing increasing challenges in ensuring student engagement and academic success. The onset of COVID-19 has amplified the need for addressing how courses are conducted online and how students respond to their new learning environs (Algarni, 2021). Good tutorial support is more time-consuming than conducting a face-to-face course. The success of blended learning stands with tutorial support. The pandemic has had an impact on teaching. The education sector reacted quickly to this situation and implemented e-learning in institutional facilities.

The course is aimed at teacher training students with the purpose to prepare the participants for internet-supported English lessons by acquiring technical knowledge in the digital virtual space. The course concept was further developed as a part of the trial phase and adapted to both the needs of the students and the curricular requirements. The specifics of this course is that several cross-location institutions are networked with one another. The processing of the tasks and the work processes in the virtual learning groups and their "products" can only succeed if the collaboration in the cross-location remoted groups works.

The course concept provides a hybrid learning arrangement in which the effectiveness and flexibility of e-forms of learning are combined with the social aspects of face-to-face communication. The course for future teachers of foreign languages combines essential elements of blended learning with those of face-to-face learning. The following points should be mentioned in particular:

- presence phase support,
- blended learning modules,
- self-learning support,
- self-control,
- cooperative learning.

During online learning platforms Google Classroom, Google Meet, Moodle, Zoom, and LMS (Learning Management System) Collaborator was used. On different platforms, Ukrainian educational institutions can display their entire institution in virtual workspaces. Internet-supported cooperative, networked work and support learner-centered forms of teaching and learning are promoted. The platforms are easy to use and do not stand unsolvable problems even to inexperienced users (Mohebi, 2021). Concerning the evaluation - which was also a part of the study - it scores very well overall.

2. LITERATURE REVIEW

Many countries switched from face-to-face learning processes to distance, as well as digital learning (e-learning) (Crawford et al., 2020; Han & Ellis, 2019). This new environment allows flexible and self-paced learning and reflection, which gives the students time to review the learning materials and improve the lesson activities, and at the same time, allow the teachers to monitor students' progress (Rapanta et al., 2020, Biedron, Mitręga, & Wawrzak-Chodaczek, 2021). However, the implementation did not produce the desired results, since the merely technical equipment of the educational areas does not achieve the

hoped-for qualitative improvement in teaching (Kerres et al., 2007). For foreign languages teaching in universities, it has been proven that the use of digital tools does not automatically increase the students' motivation to learn, through the use of information technologies in combination with suitable didactic models and if there are positive attitudes among students, however, the interest of the learner can be strengthened, curiosity can be aroused or emotional participation of the learner can be evoked (Thage et al., 2021).

The regular implementation of blended learning in foreign languages teacher training is a necessity, which can be seen from the analysis of the essential competencies in the future professional field (Anthony et al., 2019; Andrejević and Nejković, 2022, McCarthy, 2015). New requirements result from this analysis of the teachers' professionalization, which must be taken into account in the current discussion about training standards. The availability of digital technologies in foreign language lessons enables qualitatively new learning experiences. Therefore, prospective teachers should learn how they can create language-capable learning environments in which the digital technologies are not only used irregularly but also are sensibly implemented (Hung, 2016; Orlando, 2013). At the same time, future foreign language teachers should always critically ask about the added value of using digital technologies and be able to evaluate it (approach of research-based learning) (Kniazain, et al, 2021). It can be observed that nowadays the implementation of blended learning in foreign languages teacher training is the subject of scientific investigations.

The term cooperative learning describes a learning process in which the learners in small, often heterogeneous groups collaborate in a certain way, e.g. working on certain tasks, solving problems, or creating common products for achieving a common goal. In their learning process, they exchange ideas and activities and support each other. The notion of cooperative learning is often changed from that of collaborative learning (Zheng, 2017).

Thorne (2003) considers blended learning as the integration of the innovations offered by online learning with the best practice of interaction and participation with traditional learning. Because of the mixture of face-to-face and virtual learning, the term "hybrid learning" is also used (Woltering et al., 2009). Referring to blended learning in higher education, it has been defined as "a combination of technology and classroom instruction in a flexible approach to learning that recognizes the benefits of delivering some training and assessment online but also uses other modes to make up a complete training program which can improve learning outcomes and/or save costs" (Banados, 2006, Montalban, 2021). The mere use of digital technologies does not guarantee better teaching (Kmecová, 2020, Lindberg, 2017, Orlando 2013). The combination of face-to-face learning and electronic teaching/learning concepts within the framework of organized and continuously supervised training, further education, and training measures is didactically meaningful. Herloa (2015), Diaz and Entonado (2019) highlighted that the blended learning strategy is satisfactory if it uses interactive methods aimed at students so effective as face-to-face learning, it provides more assistance both in the teaching and learning process and in the current and final evaluation.

3. METHODS

The research design is based on the triangulation of quantitative and qualitative methods. First of all, acceptance of blended learning format, questionnaire data and attitudes towards certain social forms were examined and surveyed in foreign languages teacher training (closed questions, n=186).

During the cooperative phases, observation protocols were made and created in the context of the face-to-face classes and the online course phases. At the end of the course, a second questionnaire (n = 95) was used to evaluate the course of the seminar and provide information on the effectiveness and basic didactic conception of the blended seminar allowed. These results were matched with the data from the first questionnaire. In addition, 16 semi-structured guided interviews were conducted with selected test subjects, which were based on the content analysis with the help of the software MAXQDA and were evaluated, which allowed more detailed attempts at an explanation for certain individual cases.

The participants are students of foreign language (English) of the three cooperating departments (Department of Methods of teaching foreign languages, Department of English Philology, Department of Translation and multicultural communication). As a rule, about 40 students, 20-22 years old register per Department (in total 120 students). The participants work in a remoted learning group.

4. RESEARCH PROCEDURE

The main purpose of the seminar is the integration of digital technologies in the foreign language teaching process. The participants acquire skills in media didactics and expand them by cooperating in a distant learning environment based on the examination of existing models and designing a lesson unit for foreign languages teaching with the functional use of digital media (Kakoulli - Constantinou & Papadima -Sophocleous, 2020). During practice, they expand their digital literacy by using computers, internet, learning platforms, e-mails, chats, weblogs, podcasts, forums, digital tools, etc.

The participants are in constant contact with the tutor and take advantage of the exchange students from other institutions, who supervise this process as learning companions of the distance learning group. The students deal intensively with lesson planning, formulation of learning objectives, the creation of a didactic-methodical commentary and the creation of material apart and are competently advised by the tutors. The participants get to know how to learn in digital environments with all advantages and disadvantages. They try out learning and working with digital tools based on solving the problems that arise when working with a learning platform. They can transfer these experiences to the later teaching situation. The processes of reflection are supported by a self-assessment, through a peer assessment in the course of the evaluation of the teaching units by the other participants of the seminar and finally through an intensive evaluation of both the concept as well as the entire teaching unit initiated by the lecturers.

Cognitive Interest

The focus of the investigation is the question under which conditions successful cooperative learning processes take place in blended space and which factors make this collaboration difficult. In addition, the following research questions are investigated:

- How is the blended learning offer established in foreign language teacher training? Are the appropriate offers made and why are they (not) selected by students in a foreign language subject?
- How successful is the acceptance of blended learning course concepts?

- Must the conditions for successful cooperative learning in face-to-face classes be transferred to blended cooperation? What special conditions exist for blended cooperation and how can conditions that promote cooperation be created?
- Is the developed course concept "Digital technologies in foreign languages teaching: theories, methods, applications" effective, i.e., does it lead to desired learning success? How do the participants evaluate their learning progress in the areas of "didactic competence", "practical teaching competence" and "digital competence"?

Quantitative Research Design

The quantitative study, which was conducted in the period from February to April 2022, was preceded by a pilot study in March 2022 to examine the metric characteristics of the assessment scale. The qualitative study, which was conducted in May 2022, was preceded by a pilot study in June 2022 to verify the adequacy of the questions for the subsequent interviews.

In the construction of the quantitative survey instruments, the previously generated hypotheses were so operationalized that the descriptive findings and calculated correlation measures are later used to answer the questions. Before activating the online survey for the field phase, both questionnaires were subjected to a pretest to ensure that the items were understandable to be tried out on a group of people who can also be assigned to the target group. Furthermore, this test phase also served to ensure a sufficient variation of the checked answers and the burden on the respondents. Also, the quality of the filter guidance was taken into account.

The data may relate to three different study groups, which are named below in chronological order with α, β and γ. The group α (n = 186) consists of students to become a teacher of a foreign language (Englisch) at the Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University.

Accordingly, group α relates to the initial questionnaire at the time of investigation t1. The group β consists of the course participants who have finished the course. Thus, group β relates to the initial survey (n = 95) at the time of investigation t2 and group γ to the adjusted data set that resulted from the matching of the common cases of groups α and β (n = 53).

Qualitative Research Design

The qualitative data can help to identify possible explanations based on individual case analyses for results of the quantitative investigation and to supplement the total amount of data. To collect data, logs were drawn up as a part of the participatory observation of six online groups in total. Finally, a semi-structured guided interview was conducted with 16 test persons. These interviews were done after the transcription in MAXQDA and then analyzed. The aim of collecting the qualitative data is to identify the typology of the researched aspects in the investigated groups and thereby transfer it to others, to enable the situation. Meanwhile, both positive and negative aspects and factors of cooperative online collaboration could be analyzed then. Some obtained aspects and questions have been incorporated into the following presentation of the results.

5. RESULTS

In response to the question "How do you feel about the following statements about computer-aided learning in universities?" could be on a five-point Likert scale (possible answers: 1 = strongly disagree to ascending 5 = completely agree to). In summary, it can be stated that the study group β tends to be positive towards digital-aided teaching which is reflected in the total score of the positive questions (mean = 3.70). The negative questions underpin this result, in which the total score is below 3.00. The two are noticeable highest mean values for digital-aided teaching. The respondents connect this type of teaching with useful learning content (MW = 4.36). It also offers great potential for imparting digital skills to prospective teachers (AV = 4.29). This positive assessment could be due to the flexible work design, which 83% of the respondents (n = 53) attribute to the seminar concept. The majority of respondents (60.6%) admit that their individual needs are taken into account. As a result, it can be concluded that the strong consideration of individual needs and the flexibility of time added value for the students, which would induce them to repeat such a course type (Cramer-V =, 706 **; n = 94). 73.5% of the seminar participants also see an advantage in not having to attend face-to-face meetings.

In group α t1, attitudes towards blended seminars were collected using a list of items. First and foremost, it was done using a six-stage scale to determine the effectiveness of the course concept in a blended form of teaching. The motive for the registration for the blended course was on the one hand through an open questioning determined, on the other hand also utilizing multiple alternative specifications (multiple choice). In addition, it was asked whether and which experience with an online course has already been made. These items are through a closed question with multiple specifications without ranking characterized. Finally, a six-point scale was used to determine which personal commitment is brought into the course. The following ranking of the most frequently selected reasons for choosing a course is shown in Figure one:

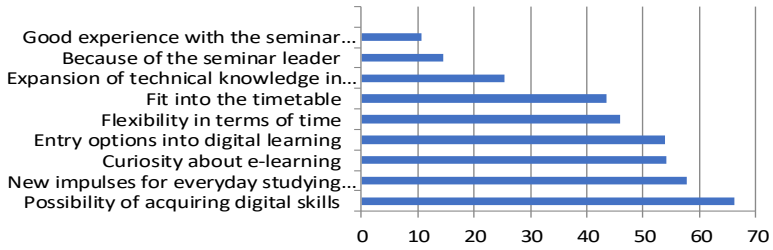


Fig. 1 The motive for the registration for the blended course

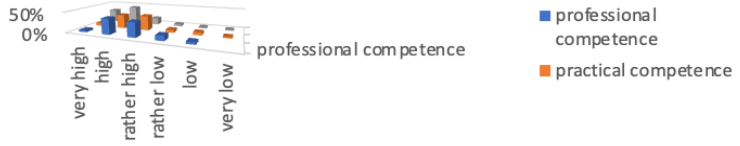
Looking at the first four ranks suggests that the course is primarily attractive to students because of its innovative character. In addition, the flexibility in terms of time is also appealing to a large extent, which is gained by participating in the course.

When assessing their readiness for the blended course the students stated that 76.9% were high to very highly motivated. 20.5% of the participants described their willingness to work as high, while only two course participants (2.6%) announced a rather low to low level of engagement (n = 83; mean = 4.99; SD =,798).

Compared to other courses, the assessment of the effectiveness of previously attended online seminars declines relatively poorly and declines after the block seminar (56.9% useful to very useful), but before the lecture (22%) took the penultimate place (56.7%).

The respondents consider the course with practical relevance to be the most effective form (93.2%). With a clear margin, this is followed by the workshop (80%), the weekly seminar (70.9%) and the tutorial (70.7%).

The course participants rate their learning progress as high (group β t2). The increase in terms of their didactic and teaching practice 83.2% of them rate competencies as "rather high to very high". Concerning the development of digital competence, 91.6% of them even spoke up for this positive assessment (right-skewed distribution), as shown in Figure two can be seen.



	very high	high	rather high	rather low	low	very low
professional competence	5%	39%	36%	12%	5%	
practical competence	8%	34%	36%	7%	7%	3%
digital competence	32%	44%	17%	5%	3%	2%

Fig. 2 Self-assessment of the learning progress

In addition, it should be noted that the spreading of the learning progress of digital literacy drops even steeper to the right. The graphic therefore substantiates the positive assessment of learning progress not only overall but also raises the expansion of digital literacy, as the respondents are interested in this item even more concentrated on the two most positive characteristics.

It should be added that the evaluation showed a clear positive correlation between the expansion of digital skills and the increased use of digital technologies in the classroom as a result of the course (r =,538 **). Accordingly, the Pearson correlation supports the conjecture that a teacher's increased digital competence also motivates him to use digital technologies in everyday teaching life. This is reflected in the evaluation and at the same time underlines the efficiency of the course concept. Furthermore, the increased use of digital technologies in the teaching and learning process is one of the basic goals of the course offer.

The point for motivation essentially deals with the question of the motives for which students work with digital technologies. The majority of the respondents stated that the work with digital technologies motivated them about the questions asked.

Analyzing table one, the priority of digital competence is obvious. The evaluation also shows the professional future as a strong motive.

Table 1 Motivation for intensive preoccupation with digital technologies

	Very motivated	Motivate	Rather motivate	Less motivated	Little Motivated	Not motivated
For learning	8.4	29.5	36.8	14.7	7.4	3.2
For cooperation	12.6	31.6	22.1	17.9	10.5	5.3
For communication	8.4	41.1	24.2	11.6	9.5	5.3
For professional future	26.3	31.6	24.2	9.5	5.3	3.2
For forming of digital competence	33.7	47.4	8.4	6.3	2.1	2.1

Cooperative Learning

The following hypotheses determine the influence of certain factors on the effectiveness of online cooperation:

- The higher the influence of each individual on the topic finding, the more bindingly he participates in the group work.
- The more the group members learn from each other, the higher the motivation within the group.
- If all group members do the same amount of work, then this contributes to good cooperation.
- A clear instruction of tasks in the group promotes successful graduation.
- A self-responsible work of all group members has a positive effect on cooperation.
- Strong social group cohesion ensures effective cooperation.
- Fixed roles and rules organize the group process and thus ensure effective cooperation.

Furthermore, a scaled variable was used to determine whether the virtual learning group had worked cooperatively or merely in a sharing of tasks. In addition, this item cluster also takes into account an evaluation.

Another cluster of items investigated the specific communication in online space and had the purpose of clarifying the extent to which obstacles of specific Digital-Based Communication (DBC) could be overcome, or whether these led to the failure of a group. This thematic block defined the following hypotheses, among others:

- DBC makes cooperation more difficult and leads to misunderstandings.
- The lack of social cues from DBC makes efficient cooperative learning difficult.
- An impersonal cooperation at a distance creates an anonymous and non-binding working atmosphere.
- A local and temporal independence creates an additional rate for the students who are reflected in higher motivation.
- In group work, face-to-face contact is more effective than online impersonal contact.

In this regard, it can be stated that some of the basic assumptions about cooperative learning could be proven with statistical measures of association. First of all, a relatively strong positive relationship (r =. 674 **; n = 53) between knowledge sharing and motivation can be mentioned. The students felt they were in the online cooperation motivated when they learned something from the other group members. This relationship also applies in reverse. It could also be determined that the influence of the individual participants on the topic finding of the online learning group with the responsibility towards group work (r =, 340 *; n = 53). In this case, a mutual influence can be theoretically assumed.

Table two shows a statistically highly significant and in some cases strong positive relationship between the variables “extent of responsibility for the topic finding”, “Influence on topic finding” and “Responsibility for results”.

The most important aspect of the online cooperation is the quality of communication. A well-functioning communication stands with an efficient knowledge sharing in the middle context (r = ,484**; n = 94) and with an efficient cooperation even in a relatively strong context (r = ,723**; n =94; r = ,733**; n = 53).

The assumption that students mainly have problems with digital-based communication, has been confirmed. Accordingly, participants who also frequently participated in the communication online space, tend to have fewer communication difficulties.

Table 2. The correlation "Influence on topic finding", "Responsibility for Results", "Obligation /Responsibility", n = 94

	Influence on the topic finding	Responsibility for Results	Obligation/ Responsibility
Influence on the topic finding	1	,268**	,385**
Responsibility for Results	,268**	1	,511**
Obligation/Responsibility	,385**	,511**	1

** The correlation is significant at the level of 0.01 (2-sided)

It could also be confirmed that the preparation of the materials made available (online courses, tasks, special articles etc.) had an impact on the motivation of the participants to work together in the group, 70% of the participants gave the notes one and two for the e-learning materials (MW = 2.15; SD = 0.829). The bivariate correlation of items "Working with digital technologies has made me work in terms of working together in the group" and "Preparation of the e-learning material for work in the online learning group" shows a significant positive correlation between the two variables (r = 0.310**; n = 95). Since the variables are both encoded in ascending order in six stages, the correlation must be interpreted in such a way that the preparation of the network material has an impact on the motivation to cooperate in the online learning group.

Focused on the effectiveness of collaboration, it can be stated across groups that a clear majority of students rated as good to very good both the effectiveness of virtual collaboration and the effectiveness of cooperation results. In terms of the effectiveness of the cooperation, there is a percentage of 62.8% ("very effective" and "effective"), for the top two scale values, for the evaluation of the result of 77.7%. It was also found that the perception of effectiveness and the result of the cooperation to a large extent (r = 0.842 **; n = 94) correlate with the perception of the cooperative work itself. The greater the satisfaction with the cooperation, the better the result and effectiveness of the cooperation will be assessed and vice versa (Songsangyos, et al., 2016).

6. CONCLUSION

Overall, quite positive results have been recorded concerning attitudes towards digital technologies in language teacher training. Accordingly, the majority of prospective teachers see a future in a blended learning format. At a closer look, these results also show that they ascribe a very high benefit to digital-aided teaching when it comes to teaching a certain content. In connection with this, the potential of teachers' digital competence is highlighted. The blended concept of the course is chosen primarily because of its innovative character to deal with digital tools and technologies in terms of professional future. It speaks for a high evaluation of the professionalization of the foreign language teachers by the students. Contrary to expectations flexibility was a positive aspect only for less than half of the students that participated. However, the participants provided the meaning of the course concept from the consideration of individual needs.

Although the effectiveness of a blended course tended to be rated as high, compared to other forms of teaching, this form ranked rather at the bottom. Further results indicate that although learning platforms are already widely used in higher education, these are usually used only for communication with all course participants or for the presentation of results. As assumed at the beginning, blended seminars in foreign language teacher training however are not regularly offered.

Online cooperation was determined as a central and significant influencing factor. First, it was found that due to the hybrid form of communication, the blended learning course concept is geared towards the preferences of the majority of students. The potential of communication technologies was shown on the learning platform. In this context, it could be observed that the frequent use of synchronous communication digital tools leads to satisfactory communication.

However, it was found that experienced users with online collaboration had fewer problems with communication than others. Online communication can be learned. This assumption was also supported by the fact that respondents, who generally prefer face-to-face communication with fellow students, experienced the online exchange in the course of the seminar as more problematic. This shows the necessity to implement a blended course for communication training on the platform.

The main problems in the online learning groups occurred due to the specifics of network-based communication. A lack of commitment, difficulties in motivating other participants to actively participate in the cooperative studying, technical and temporal coordination problems as well as the diffusion of responsibility can all be mentioned in this context.

The course concept was accepted overall positively by the students so that the majority of the course participants would choose such a course concept again. From the students' point of view, the course is very good work-intensive, but the intensive examination of the course content is also rewarded in the form of high learning progress or competence gains. In this regard, the expansion of digital skills is particularly important emphasized, which was rated as high to very high in terms of quantity and quality.

Because of these new skills, students see themselves as able to integrate digital skills into their future professional work. It was confirmed, that digital technology will increasingly be used in foreign language lessons because they have acquired the necessary didactic, practical teaching and digital didactic skills. Furthermore, the personal settings play in this context a role, so that prospective teachers interested in digital technologies would be more likely to use digital tools in the classroom. This statement is known for expressions like “Teachers don’t teach the way they were taught to teach; teachers teach the way they were taught” (Oleson, Hora, 2013, p. 29). However, when online teaching is used, there is a change in face-to-face teaching practices (Bliuc, et al., 2010; Gherhes et al, 2021; Wu, 2021; Zalat et al., 2021).

In this regard, the obvious progress of respondents’ transparency towards digitalization can be admitted. The generated hypothesis can confirm a positive attitude towards the functional use of digital technologies because the students prospectively state that they want to use the self-experienced motivational potential of digital use in their own foreign language teaching for their students. Of course, this hypothesis would have to be checked in further research.

REFERENCES

Alqarni N. (2021). Language Learners’ Willingness to Communicate and Speaking Anxiety in Online versus Face-to-Face Learning Contexts. *International Journal of Learning, Teaching and Educational Research*, 20 (11),57-77. https://doi.org/10.26803/ijlter.20.11.4

Andrejević, D. and Nejković, V. (2022). “E-Learning Web application for teaching English for specific purposes – “English at a click”” Journal of Teaching English for Specific and Academic Purposes 10 (1): 13-29. https://doi.org/10.22190/JTESAP2201013A.

Anthony, B., et al. (2019). Exploring the role of blended learning for teaching and learning effectiveness in institutions of higher learning: An empirical investigation. *Education and Information Technologies*, *24*(6), 3433–3466. https://doi.org/10.1007/s10639-019-09941-z

Banados, E. (2006). A blended-learning pedagogical model for teaching and learning EFL successfully through an online interactive multimedia environment. *CALICO Journal*, *23*(3), 533–550.

Biedroń, M., Mitręga, A., & Wawrzak-Chodaczek, M. (2021). Remote learning during the covid-19 pandemic in the opinion of Polish university students. *New Educational Review, 64*, 122–133. https://doi.org/10.15804/tner.2021.64.2.10

Bliuc, A. M., Ellis, R.A., Goodyear, P., & Piggott, L. (2010). Learning through face-to-face and online discussions: Associations between students' conceptions, approaches and academic performance in political science. *British Journal of Educational Technology*, *41*(3), 512–524. https://doi.org/10.1111/j.1467-8535.2009.00966.x

Crawford J., et al. (2020) COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching, 3*(1), 9-20. https://doi.org/10.37074/jalt.2020.3.1.7

Díaz, L. A., & Entonado, F. B. (2009). Are the functions of teachers in e-learning and face-to-face learning environments really different? *Journal of Educational Technology & Society, 12*(4), 331–343 https://drive.google.com/file/d/1_RuB4CccKg6HyzSD_OSJ3rZ84mHWhUV-/view

Gherheș, V., Stoian, C. E., Fărcașiu, M. A., & Stanici, M. (2021). E-learning vs. face-to-face learning: Analyzing students' preferences and behaviors. *Sustainability, 13*(8), 1– 15. https://doi.org/10.3390/su13084381

Graham, C., Woodfield, W., & Harrison, J. (2013). A framework for institutional adoption and implementation of blended learning in higher education. *The Internet and Higher Education*, *18*, 4–14.

Han, F., & Ellis, R. (2019). Identifying consistent patterns of quality learning discussions in blended learning. *The Internet and Higher Education, 40*, 12–19. https://doi.org/10.1016/j.iheduc.2018.09.002

Herloa, D. (2015). Improving efficiency of learning in education master programs, by blended learning. *Procedia-Social and Behavioral Sciences*, *191*, 1304-1309.

Hung, M. L. (2016). Teacher Readiness for Online Learning: Scale Development and Teacher Perceptions. *Computers and Education, 94*, 120–133. DOI: 10.1016/j.compedu.2015.11.012

Kakoulli Constantinou, E., Papadima-Sophocleous, S. (2020). "The use of digital technology in ESP: current practices and suggestions for ESP teacher education". The Journal of Teaching English for Specific and Academic Purposes. Vol. 8 N. 1, Special Issue: 17-29. https://doi.org/10.22190/JTESAP2001017K

Kerres M., & Nubel I. (2009) Gender and E-Tutoring – A Concept for Gender Sensitive E Tutor Training Programs. Available at https://www.researchgate.net/publication/27336803_Gender_and_E-Tutoring_A_Concept_for_Gender_Sensitive_E-Tutor_Training_Programs

Kmecová I. (2020) Digitization, Digital Technology, and Importance of Digital Technology in Teaching. In S. Ashmarina, M. Vochozka, & V Mantulenko, (eds.), *Digital Age: Chances, Challenges and Future. ISCDTE 2019. Lecture Notes in Networks and Systems* (Vol. 84, pp. 526–537). Springer, Cham. https://doi.org/10.1007/978-3-030-27015-5_63

Kniazain, M., Khromchenko, O., Sushchenko L. (2021). "Development of future teachers' project competence to design learning process of GE, ESP, LSP". The Journal of Teaching

English for Specific and Academic Purposes. Vol. 9 No 3: 495-504. https://doi.org/10.22190/JTESAP2103495K

Lindberg, O. J., Olofsson, A. D., & Fransson, G. (2017). Same but different? An examination of Swedish upper secondary school teachers' and students' views and use of ICT in education. *International Journal of Information and Learning Technology, 32*, 122–132.

McCarthy, M. (Ed.). (2015). *The Cambridge Guide to Blended Learning for Language Teaching* (The Cambridge Guides). Cambridge: Cambridge University Press. doi:10.1017/9781009024754

Mohebi L. (2021). Theoretical Models of Integration of Interactive Learning Technologies into Teaching: A Systematic Literature Review. *International Journal of Learning, Teaching and Educational Research, 20*(12), 232-254. https://doi.org/10.26803/ijlter.20.12.14

Montalban, N. (2021). "Developing a hybrid didactic course in ESP". Journal of Teaching English for Specific and Academic Purposes 9 (1), Special Issue: 675−692. https://doi.org/10.22190/JTESAP2104675M.

Oleson, A., Hora, M.T. Teaching the way they were taught? Revisiting the sources of teaching knowledge and the role of prior experience in shaping faculty teaching practices. High Educ 68, 29–45 (2014). https://doi.org/10.1007/s10734-013-9678-9

Orlando, J. (2013). ICT-mediated practice and constructivist practices: Is this still the best plan for teachers' uses of ICT? *Technology, Pedagogy and Education*, *22*(2). https://doi.org/10.1080/1475939X.2013.782702

Rapanta C., Botturi, L., & Goodyear, P. (2020) Online University Teaching During and After the Covid-19 Crisis: Refocusing Teacher Presence and Learning Activity. Postdigital Science and Education, *2*, 923–945. DOI: 10.1007/s42438-020-00155-y

Songsangyos, P., Kankaew, S., & Jongsawat, N. (2016). Learners' acceptance toward blended learning. *Proceedings of 2016 SAI Computing Conference, SAI 2016*, 890–892 https://doi.org/10.1109/SAI.2016.7556085

Sun, A., & Chen, X. (2016). Online Education and its Effective Practice: A Research Review. *JITE: Research, 15*, 157–190. https://doi.org/10.28945/3502

Thage, E. M., Mokgosi, P. N., & Mthembu, J. T. (2021). Exploring the effects of implementing guided reading approach to enhance the reading proficiency of English second language learners in South Africa. Problems of Education in the 21st Century, *79*(6), 971-992. https://doi.org/10.33225/pec/21.79.971

Thorne, K. (2003). *Blended learning: how to integrate online & traditional learning*. Kogan Page Publishers.

Woltering, V., Herrler, A., Spitzer, K., & Spreckelsen, C. (2009). Blended learning positively affects students' satisfaction and the role of the tutor in the problem-based learning process: Results of a mixed-method evaluation. Advances in Health Sciences Education, *14*(5), 725-738. https://doi.org/10.1007/s10459-009-9154-6

Wu, S. Y. (2021). How Teachers Conduct Online Teaching During the COVID-19 Pandemic: A Case Study of Taiwan. *Frontiers in Education, 6.* https://doi.org/10.3389/feduc.2021.675434

Zalat, M. M., Hamed, M. S., & Bolbol, S. A. (2021). The Experiences, Challenges, and Acceptance of E-Learning as a Tool for Teaching during the COVID-19 Pandemic among University Medical Staff. *PLoS ONE, 16.*

Zheng L. (2017). *Knowledge Building and Regulation in Computer-Supported Collaborative Learning.* Springer Singapore. DOI: https://doi.org/10.1007/978-981-10-1972-2