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ORIGINAL CONTRIBUTION Blended Learning Perspectives and Practices at Higher Education Department Colleges in Faisalabad

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Abstract— This study presents Blended Learning (BL) perspectives and practices at Punjab Higher Education Department colleges in the district of Faisalabad, Pakistan. The study was carried out under a descriptive survey design. A sample of 105 college teachers, teaching BS-level subjects in Graduate colleges in the Faisalabad district was selected for this study. A 5-point Likert scale questionnaire was used to obtain responses from the respondents. Descriptive data analysis methods were used to evaluate quantitative data. College teachers expressed a positive attitude towards blended learning. They recognized the value of BL for improved learning possibilities, time flexibility, interest, and student motivation. They also practice blended learning in their institution. But this practice is not common and consistently throughout the institutions. There is no formal spot and mechanism of BL practices in higher education department colleges. **Index Terms**— Blended earning, Perspectives, Learning possibilities, Student motivation, Practices.

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Introduction

Since education is essential to developing people and nations, every country globally strives to improve its educational system. Educational institutions were looking for effective teaching strategies that encourage students to be active learners. Teachers are then supported in achieving the desired educational outcomes by combining traditional education with online education; this takes many forms, along with technical and electronic advancements both within and outside the classroom (Mula, 2015). The development of digital technology has a big influence on how students learn in higher education and how teachers educate. The most recent educational reforms call for higher education to embrace technology more effectively. It is time to advance by accepting this change and incorporating technology into more learner-centered teaching strategies. Given that a single distribution method may not provide options, engagement, learning, or performance, this can be accomplished by using different modalities to deliver the appropriate content in the appropriate form (Singh, 2003).

Higher education institutions are under growing pressure to use technology-mediated instructional techniques to suit the diverse academic demands of the students. Lecturers are using Information Technology (IT) in their lessons to improve students' learning. BL which blends in-person training with online instruction, is one of these strategies (River et al., 2016). BL is one of the most suitable approaches for higher education to familiarise the learner with continuous learning to educate himself and enrich his knowledge. Higher

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education aims to foster critical and creative thinking skills and equip students with tools for generating ideas (Oweis, 2018; Thongchai, 2016).

To address unique needs for information and knowledge sharing, BL entails integrating multiple instructional methods, delivery models, and technological deployments (BokoloJr et al., 2020). To optimize the advantages and benefits of each and to achieve the desired goals, BL integrates and blends traditional face-to-face classroom training with online learning. In reality, e-learning and conventional schooling are not incompatible; rather, they are combined (Elfaki, Abdulraheem, & Abdulrahim, 2019; Sicilia, 2018; Wright, 2017). Students often engage in traditional instructor-led face-to-face sessions with synchronous communication as part of the usual BL approach, which also makes use of web-based learning resources like the Learning Management System (LMS) to create a hybrid learning environment (Wang, 2021). In technologically advanced nations, BL has gained much traction both as a concept and a teaching methodology. The absence of technological expertise, inadequate infrastructure, and the educational atmosphere are only a few reasons why developing nations' education regimes have not fully accredited it in their institutions (Kumar et al., 2021).

BL can be advantageous and challenging for both teachers and students, the educational approach itself, as well as the institutions, and educational technologies, along with the changes in the responsibilities of the two parties. Learners can become more motivated, independent, disciplined, and committed with trained teachers. As a result, teachers take the initiative and keep up with new techniques, resources, and equipment that are appropriate for the BL methodology (Carmona & Irgang, 2020). According to studies, students' favorable opinions regarding the use of BL have a beneficial influence on the growth of their abilities, independent learning, and motivation (Baker, 2018). On the other hand, the viewpoints and attitudes of the teachers play a critical role in the success of any BL model.

It's also crucial to consider the views of the teachers on BL. Teachers hold a variety of opinions regarding the best environments or models for BL. Due to the increased effort, time commitment, lack of pedagogical and technological skills needed to conduct BL, and challenges striking the optimum balance between in-person and online learning, some teachers see it as a burden (Ma'arop & Embi, 2016). They also reject mixed learning because they lack the knowledge and skills to combine the two (Krasnova & Shurygin, 2019) properly. Some of them, for example, think that there has to be significant institutional support for them to understand the significance of their position and technology in the modern digital environment (Cabauatan, Uy, Manalo, & Castro, 2021).

They note that difficulties with internet connections often prevent kids from appreciating online learning due to site constraints because they are specialists and are in charge of putting this teaching style into practice. Some professors are open to changing their views on the use of ICT in the classroom, and they believe that for BL to be successful, there has to be adequate IT infrastructure and legislative backing (Dewi, Ciptayani, Surjono, & Priyanto, 2018). Additionally, some educators think personalized education calls for a plan to deal with low motivation levels, understanding students' requirements, a range of specific success criteria, and strong connections with students founded in decision-making (Mathews & Ward, 2019). If teachers aren't encouraged to restructure their courses such that they give students more diverse learning opportunities than either online or in-person instruction alone, BL won't live up to its promise of improving learning (Jeffrey, Milne, Suddaby, & Higgins, 2014).

For students, instructors, and other staff members working in both public and private institutions in Punjab, the Higher Education Department (HED) provides teaching, learning, and associated services. Its objective is to build an educated society where all Pakistani youth have access to educational opportunities regardless of their familial circumstances or social, racial, or cultural background. With a vast network of field offices to ensure executive decision compliance, HED is a ministerial department. Overseeing more than 750 colleges across Punjab is HED's present network of one field headquarters, Directorate of Public Instructions Colleges Punjab, nine divisional directorates, and 37 district directorates. The HED also oversees nine Boards of Intermediate and Secondary Education (BISE), each of which is housed at a divisional headquarters for exams. HED governs more than 50 public and private universities and 26 autonomous institutions.

Objectives

Objectives of the study are:

- To find teachers' perspectives on BL in Punjab Higher Education Department colleges.
- To describe BL practices in HED colleges.

Research questions

- · What are teachers' perspectives on BL in HED colleges of Punjab?
- How is BL practiced in HED colleges?

Literature Review

Word Blended refers to a mixture or combination. According to Picciano (2009), Online learning and face-to-face training are combined in this mixed technique. Currently, the combination of traditional face-to-face training with cutting-edge web-based learning techniques is referred to as "BL." By influencing policy and strategic activities in higher education at all levels, BL is frequently seen as a method for bridging the gap between the conventional and the modern (Moskal, Dziuban, & Hartman, 2013). BL involves both online and physical classroom interactions, encouraging students to study in a group setting and on their schedule (Carbonell et al., 2013). According to Dakduk et al. (2018) different teaching methods, BL uses many communication methods, including synchronous and asynchronous, to boost interaction with students in person, encourage motivation for in-person learning, and enhance engagement.

The teacher and students must both be present digitally on the chosen e-learning platform and physically in the classroom, where they have some influence over the time, place, and speed. BL uses two or more instructional delivery techniques to provide the learner with information and skills. For instance, it uses the classroom for practical instruction and assessments while disseminating theoretical information via the internet or other forms of electronic media (Lothridge, Fox, & Fynan, 2013). BL, according to O'Connor, Mortimer, and Bond (2011), is a concept that integrates cutting-edge educational practices and methodologies that emphasize student-centered active learning with more traditional approaches that emphasize teacher-centered approaches and passive learning on the part of the students.

Nature of BL

The combination of technology and in-person training in the classroom is known as "BL" or "hybrid learning" (Shu & Gu, 2018). BL combines traditional in-person instruction with online learning. This education method is becoming increasingly popular at many renowned universities worldwide since it raises academic standards, boosts exam pass rates, gives students more flexibility with their schedules, and eliminates geographical obstacles (Hackman & Oldham, 1976). Essentially, it mixes traditional classroom education with online and computer-mediated learning activities (Allen et al., 2007). BL is more beneficial since it employs several teaching methods to enhance learning and reduce content delivery costs. The term "blend" refers to combining digital information with in-person classes and activities when discussing BL. Blended learning is a stage that occurs between traditional classroom education and the delivery of knowledge wholly online. A type of education called BL uses technology in the classroom. An advanced form of digital instruction called online learning is distinct from BL. Chained or combination models are used to implement BL (Kumar et al., 2021).

This makes learning more engaging for both the instructor and the students by allowing them to participate, learn, and ask questions outside the classroom. BL environments allow students to participate in face-to-face learning sessions inside classrooms while simul-taneously having access to learning resources outside of them. These tools include discussion boards and chat platforms. As a result, students are encouraged to connect socially with professors and classmates in a BL setting while also having access to flexibility in time and location that is impossible in face-to-face training (Eryilmaz, 2015).

Benefits of BL

Lu et al. (2018) claim that BL is now well-liked by institutions due to its positive impacts on pupil motivation and performance. BL that incorporates online learning has many benefits, including encouraging online research, establishing connections between practitioners and the global community, instilling self-discipline, giving practitioners access to the enormous and reliable knowledge sources they need for work and school, and (Paul, 2021). BL has benefits, including enhanced learning outcomes, greater informational access, increased learning abilities, and chances to teach and learn from others (Cleveland-Innes & Wilton, 2018). Students can gain from flexible class schedules, network development, peer collaboration, active and reflective learning through the use of technology, and more when employing BL as a teaching technique. It allows teachers to include their pupils in academic and social activities (Villalon & Rasmussen, 2017).

According to Zurita, Hasbun, Baloian, and Jerez (2015), The goal of BL is to provide students with the tools they need to succeed in today's society and business, such as collaboration, creativity, information literacy, and communication. It will also help them become more adept at using a variety of digital technologies. The shift from passive to active learning by requiring students to read, talk, listen and think is another advantage of the BL paradigm for students. Additionally, it offers the choice of having pupils together or apart. It offers the training a human touch by encouraging a high level of engagement, accountability, and accurate assessment. As the teacher adapts the learning material to the specific requirements of various audience groups, it improves individualization, personalization, and relevancy (Kaur, 2013). According to some other studies, students highly value BL as a teaching strategy because it makes it easier to access the teaching-learning materials, facilitates quicker and more effective communication with the teacher, improves students' ability to pay attention in class, and gives them the chance to better prepare for exams (Szadziewska & Kujawski, 2017).

While enhancing learning outcomes and access flexibility, BL makes students feel more fulfilled. Additionally, it promotes a sense of belonging and provides him the assurance to use resources prudently (Poon, 2013). Similar to this, by pushing students to develop their learning and put it into practice, BL can provide pupils with a decent degree of challenge (Smyth, Houghton, Cooney, & Casey, 2011). While

offering many benefits for learners, such as creating a sense of community or belonging, BL is better than pure eLearning. It may be viewed as a successful technique of remote learning in terms of students' learning experiences, student-student contact, and student-instructor engagement (Tayebinik & Puteh, 2012). It has been proven that converting from the traditional classroom setting to a BL approach would be advantageous for students since it allows for individual study. It also benefits educators since it enables them to provide children extra attention where it is needed in a more direct and concentrated way (Alijani, Kwun, & Yu, 2014).

With the use of BL, teachers may stimulate active learning among their pupils, which in turn fosters many skills such as creativity, and communication; having the ability to employ digital technology for a range of reasons requires collaboration and self-assurance. If properly implemented, BL can increase HEIs' adaptability and agility for fast making changes to the context, even cost-effectively (Oakley, 2016). Additionally, it allows a more flexible schedule and gives lecturers the chance to develop critical skills through in-person interactions while also allowing them to consider their pedagogy. BL is a successful method for accommodating academic personnel's expectations and teaching methods (Carbonell et al., 2013). According to Graham et al., lecturers embrace BL as a teaching approach because it improves course materials' cost-effectiveness, flexibility, and accessibility (2013).

BL adoption

The use of BL is rapidly expanding at academic institutions worldwide. Researchers anticipate that BL will replace traditional teaching methods as the "new pedagogical methodology" for instructing courses in institutions (Graham et al., 2013; Jnr et al., 2021). Even though BL is very advantageous for HEIs, there are still issues with its adoption, such as the lack of vision at the institutions, gaps in capacity building, and a lack of instructions for how the government and ministries should assist in incorporating the new learning method into education (Ibrahim & Nat, 2019). According to Dziuban et al. (2015), BL's transformational influence on student achievement/success, satisfaction, access, and faculty satisfaction should be included in an institution's strategic initiatives. A few criteria that promote the adoption of BL include curiosity, a customized learning experience, computer self-efficacy, and others. Extrinsic and intrinsic incentives are two elements that significantly impact the adoption process (Brown, 2016).

Before educational institutions formally adopted BL interested faculty members utilized it to blend conventional and online teaching approaches to improve student learning results. They built BL programs after carefully weighing the risks (Graham, Woodfield, & Harrison, 2013). There are two key reasons why educational institutions are urged to modify their current instructional approaches. The most important talents of the 21st century are no longer best learned through traditional methods, to start with. The low student-to-teacher ratio is mostly to blame for their inability to address the demands of each student in the class. They cannot be modified to handle the difficulty of instructing kids with physical disabilities. They are ill-equipped to deal with the problems brought on by the irregular students because attendance is essential and the evaluation system is dependent on the annual test (Lalima & Dangwal, 2017). If BL is to be implemented successfully, E-learning must be used with in-person education. The didactic potential that may be imparted to students via the use of information technology tools must be taken into account first, and a thorough examination of the learning objectives should be conducted.

Additionally, the presentation of educational materials, practice, and feedback are fundamental elements of teachers' activities that should be considered while planning and developing effective courses (Shurygin & Sabirova, 2017). The institution's identity, strengths, and curricular, pedagogical, and technological potential must be built upon if BL environments are to be used. Additionally, To leverage the advantages of both conventional and online learning environments, it is vital to provide appropriate ecologies for faculty to adapt courses (Galvis, 2018).

The caliber of the course to be taught, the virtual environment utilized for teaching and learning, and the degree of student preparation for working in their virtual study environment are just a few of the factors that will determine if BL is successfully implemented. Hubackova and Semradova (2017) state that learners' attitudes toward carrying out the given work, their capacity to organize themselves in a particular setting, and their capacity to utilize all the resources provided by the learning management system are all crucial. According to several research studies, using and implementing e-Learning courses is necessary to implement BL successfully. Before starting the blending process, it is crucial to thoroughly analyze the learning objectives, the didactic potential of the new training information technology transfer, and the requirements for BL which entails employing e-Learning. The instructor must be familiar with all of his duties, including disseminating instructional content, practice, and feedback (Shurygin & Sabirova, 2017).

Methodology

Research design

This study was carried out using the descriptive survey design to gain an in-depth understanding of the topic.

Population

All college teachers from all Govt. colleges of HED in district Faisalabad are the population of the study.

Sample and sampling technique

The study was delimited to all Graduate colleges offering BS degree programs. The sample was drawn from 21 Graduate colleges in the district of Faisalabad using a purposive sampling technique. Only those participants were selected as samples which were teaching BS classes. The study participants comprised 105 college teachers from 21 Graduate colleges (5 college teachers from every Graduate college).

Research tool

After an extensive review of related literature, a five points Likert scale questionnaire tool was prepared for teachers to get responses for teachers' perspectives and practices of blended. Five research authorities from the field of education received a questionnaire. They carefully read the questionnaire and provided their input. According to their professional recommendations, modifications and enhancements were made. To determine the reliability of the questionnaire items, Cronbach's Alpha was utilized. The Cronbach's Alpha score was 0.82.

Data analysis

Software called SPSS-21 was used to analyze the data. Utilizing descriptive statistical data analysis approaches, data were examined descriptively.

Data Analysis and Findings

RQ 1: What are teachers' perspectives on BL in HED colleges of Punjab?

Table I displays the replies from college teachers on a 5-point Likert scale, including the mean score and standard deviation (Strongly Agree: 5, Agree: 4, Undecided: 3, Disagree: 2, Strongly disagree:1) about their perspectives on BL. The value of the mean score higher than 3 decides the majority of the respondents give agree with the response while a value less than 3 decides to disagree response from the majority of the respondents.

Table I

College teacher's perspectives on BL

Statements	Ν	Mean	Std. Deviation
BL provides greater time flexibility for teachers	105	3.65	1.21
Students show a positive attitude toward BL	105	3.31	1.25
Students are more satisfied with using technology to facilitate them in the class	105	3.80	1.21
BL provides greater time flexibility for students	105	3.38	1.29
Students want to be taught through a BL approach	105	3.45	1.23
BL has an advantage over the traditional mode of learning	105	3.06	1.34
BL is an interactive learning mode	105	3.20	1.34
My principal supports BL mode	105	3.56	1.18
My colleagues support this change from traditional to blended mode	105	3.54	1.19
BL caters to different learning styles	105	3.33	1.22

The idea that BL gives college teachers more time flexibility is widely accepted. Students' good attitudes toward mixed learning are demonstrated by their agreement with the statement. They believe that students are more satisfied with using technology to facilitate them in class. BL also provides greater time flexibility for the students, agreed by the respondents. They confirmed that students wanted to be taught through a BL approach. They accept that BL has an advantage over the traditional learning mode. They agreed that BL was an interactive learning mode. They favor the statement that college Principal supports BL mode. According to them, their colleagues also support the change from traditional to blended mode. They are also of the opinion that BL caters to different learning styles.

RQ 2: How is BL practiced in HED colleges?

Table II BL practices

Statement	Ν	Mean	Std. Deviation
I have a direct experience with a BL approach	105	3.39	1.24
I can manage the blended instructions easily	105	3.35	1.18
A BL system is implemented on a uniform basis throughout	105	2.73	1.21
The teachers are motivated and enthusiastic about BL	105	3.41	1.29
I share online data sources with my students	105	3.40	1.19
I have good pedagogical skills to merge face-to-face with an online teaching mode	105	3.36	1.33
I prefer BL over traditional learning	105	3.35	1.20
Higher Education Department (HED) provides support for BL	105	2.94	1.17
I incorporate BL practices in the class according to students' needs	105	3.45	1.33
I can manage time for online learning activities along with face-to-face teaching in the class	105	2.63	1.29

Table II shows college teachers' responses about BL practices in their classes. Respondents agreed that they have a direct experience with the BL approach. They also confirmed that they could manage BL instructions easily. On the other hand, they disagreed with the statement that; a BL system is implemented consistently throughout. They accept that they are motivated and enthusiastic about BL. They share online data sources with their students, agreed by them. They declared in favor of the statement that they have good pedagogical skills to merge face-to-face with online teaching. They show acceptance that they prefer BL over traditional learning. They negated the statement that; Higher Education Department provides support for BL. They agreed they incorporated blended practices in class according to students' needs. However, they disagreed that they could manage time for online learning activities and face-to-face class teaching.

Findings and Discussion

This study is to find the perspectives of BL in higher education department colleges and also to explore the opportunities and challenges of BL in higher education department. This study is descriptive in nature and convergent parallel mixed method design was used. Researcher collected qualitative and quantitative data at the same stage and after analysis of both types of data findings were merged in the conclusion. Thematic analysis was done to analyze qualitative data collected through semi-structured interviews. Different themes were generated for each interview question. Responses according to the themes of interview questions were further analyzed and results were interpreted. . Most of the respondents do agree with the statement that it was found that teachers have greater time flexibility in BL approach and students' attitude towards BL is positive. Results shows that the use of technology in the class is comfortable for the students as well as it was found that BL provides time flexibility for the students. Results also shows that BL is more advantageous than traditional learning and it is supported by college principals.

Develops a good interaction, and that different learning styles can be used in BL approach as well. With the support of previous studies most of the respondents do agree with the statement that teachers can manage BL instructions easily as well as that teachers get motivated by using BL. It was also found that teachers share online data and resources of learning material with their students and that teachers have teaching skills to make a blend of face to face and online modes. The results suggest that when teachers feel supported and are given the appropriate kind of coaching, training, and motivation, they respond favorably to one another on college campuses with values, attitudes, and beliefs about technology.

Theoretical Implications

In theoretical implications BL programs give students more autonomy and individualized instruction so that they may study more effectively. Students can also set their own pace for when or how quickly the knowledge is delivered. Moreover, the contemporary climate in higher education needs the use of online technology in tackling a variety of difficulties related to teaching. Blended-learning increasingly is considered as one of the key pedagogical techniques that can aid in this regard. Exploring BL in post-secondary education may offer insights into the best practices for mixed-learning schools at the primary and secondary education levels, where research is lacking, because educators at colleges and universities have been using blended program for years.

Practical Implications

Higher education professionals have learned to support students with online learning technology in addition to individualized assessment, feedback, and coaching in order to increase class participation and battle poor attendance rates. It discovered that technology can provide an online learning environment where staff and students feel comfortable discussing and collaborating and where participation is not contingent upon attending a regularly scheduled class through a survey of students in Melbourne, Australia regarding the use of Blackboard, an online learning portal to manage and provide learning experiences for college students. The possibility that students will finish their coursework is increased when technology is used to create a hybrid between in-person learning experiences and online content for students whose hectic schedules do not allow them to physically attend class every day. Additionally, because they have access to course materials both at home and at school, asynchronous learning in particular can give students as much time as they need to read material, study, reflect, and complete tasks students favor BL flexibility as well as the enhanced opportunity it gives them to communicate with their peers and instructors through discussion boards. Researchers found that although students struggled more with time management and workload in blended-learning courses than in traditional face-to-face courses, they found that the course materials in the blended courses they took were organized and of high quality.

Conclusion

Based on the study's findings, it was concluded that college teachers have a positive attitude toward BL. The perspectives on BL in Punjab Higher Education Department colleges are positive, and favor BL development in these colleges. They accepted the positive role of BL in the institutions by providing better learning opportunities, satisfaction, greater time flexibility, and interest for the students and teachers. They prefer the BL mode over the traditional mode of teaching and support BL adoption in the institutions. Findings show BL practices are not common in higher education department colleges. College teachers have skills in BL practices and use these skills to deliver their lessons in BL mode on their own. There is no formal and proper BL support, so it is not implemented consistently. Teachers also face some difficulty managing BL practices and face-to-face instruction in the class.

Limitations

This study is limited to

- Private and Govt. colleges of higher education department in Punjab.
- Cross sectional study where the researcher will measure the outcomes and exposure of the study participants at the same time.
- The private and Govt. sector boys, girls' and coeducation colleges offering graduate (BS, 4 years) programs in Punjab province.
- All Teachers, who teach to BS classes.

Future Research Directions

For future researchers the study will provide information to help administrators, campus leaders, staff, and teachers decide how best to support BL in the classroom. It will also persuade all administrators to pay close attention to teachers' needs when establishing a meaningful classroom environment through the use of instructional technology. This study will also provide future research directions for all the stake holders that

- It will give insight to the current level of higher education department regarding use of BL.
- It will guides the department about opportunities and challenges prevailing in integration of BL at college level.
- It will helps in preparing a list of what to do and what not to do about initiating BL at college level.
- It will provides guidance to higher education administration about resource allocation required in colleges to support for BL.

REFERENCES

- Alijani, G. S., Kwun, O., & Yu, Y. (2014). Effectiveness of blended learning in KIPP New Orleans' schools. Academy of Educational Leadership Journal, 18(2), 125-141.
- Allen, I. E., Seaman, J. & Garrett, R., (2007). *Blending in: The extent and promise of blended education in the United States*. Newburyport, MA: Sloan Consortium.
- Baker, A. M. (2018). Students' attitudes towards implementing blended learning in teaching English in Higher Education Institutions: A Case of Al-Quds Open University. International Journal of Humanities and Social Science, 8(6), 49-59. https://doi.org/10.1080/ 09687761003657614.
- BokoloJr, A., Kamaludin, A., Romli, A., Mat Rafei, A. F., AL Eh Phon, D. N., Abdullah, A., Ming, G. L., Shukor, N. A., Nordin, M. S., & Baba, S. (2020). Concept and evidence is a managerial perspective on institutions' administration readiness to defuse blended learning in higher education. *Journal of Research on Technology in Education*, 52(1), 37–64. https://doi.org/10.1080/15391523.2019.1675203.
- Brown, M. G. (2016). Blended instructional practice: A review of the empirical literature on instructors' adoption and use of online tools in face-to-face teaching. *The Internet and Higher Education*, *31*, 1–10. https://doi.org/10.1016/j.iheduc.2016.05.001.
- Cabauatan, R. R., Uy, C., Manalo, R.A., & Castro, B. (2021). Factors affecting intention to use blended learning approach in the tertiary level: A quantitative approach. *Higher Education for the Future*, 8(2), 239-252. https://doi.org/10.1177/2347631121101193.
- Carbonell, K. B., Dailey-Hebert, A., & Gijselaers, W. (2013). Unleashing the creative potential of faculty to create blended learning. *The Internet and Higher Education*, *18*, 29–37. https://doi.org/10.1016/j.iheduc.2012.10.004.

Carmona, L.J. & Irgang, L.F. (2020). Challenges on teaching of management through blended education. *Pensamento Contemporâneoem Administração*, *14*(1), 16-33. https://doi.org/10.12712/rpca.v14i1.40632.

- Cleveland-Innes, M., & Wilton, D. (2018). *Guide to blended learning, common wealth of learning*. Vancouver, Canada: Common wealth of Learning (COL),
- Dakduk, S., Santalla-Banderali, Z., & van der Woude, D. (2018). Acceptance of blended learning in executive education. *SAGE Open, 8*(3), 1-16. https://doi.org/10.1177/2158244018800647.
- Dewi, K. C., Ciptayani, P. I., Surjono, H. D. Priyanto. (2018). Critical success factor for implementing vocational blended learning, The 2nd International Joint Conference on Science and Technology (IJCST), Bali, Indonesia. https://doi.org/10.1088/1742-6596/953/ 1/012086.
- Dziuban, C., & Picciano, A. (2015). The evolution continues. ECAR Research, 6(15), 1–19.
- Frey, N., Fisher, D., & Pumpian, I. (2013). Quality in a blended learning classroom. Principal Leadership, 14(2), 60–63.
- Elfaki, N., Abdulraheem, I. & Abdulrahim, R. (2019). Impact of e-learning vs. traditional learning on student's performance and attitude. *International Journal of Medical Research and Health Sciences*, 8(10), 76-82. https://doi.org/10.4018/978-1-60566-852-9.ch006.
- Eryilmaz, M., (2015). The effectiveness of blended learning. *Environments, Contemporary Issues in Education Research, 8*(4), 251-256. https://doi.org/10.24059/olj.v15i1.190
- Galvis, Á. H., (2018). Supporting decision-making processes on blended learning in higher education: Literature and good practices review. *International Journal of Educational Technology in Higher Education, 15*, 15-25.https://doi.org/10.1186/s41239-018-0106-1.
- Graham, C. R., Woodfield, W., & Harrison, J. B. (2013). A framework for institutional adoption and implementation of blended learning in higher education. *The Internet and Higher Education*, 18, 4–14.https://doi.org/10.1016/j.iheduc.2012.09.003.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 2, 250–279. https://doi.org/10.1016/0030-5073(76)90016-7.
- Hubackova, S. & Semradova, I. (2017). Evaluation of blended learning, procedia-social, and Behavioral Sciences, 217(5), 551-557. https:// doi.org/10.1016/j.sbspro.2016.02.044.
- Ibrahim, M. M., & Nat, M. (2019). Blended learning motivation model for instructors in higher education institutions. *International Journal of Educational Technology in Higher Education*, *16*(1), 1-21. https://doi.org/10.1186/s41239-019-0145-2.
- Jeffrey, L. M., Milne, J., Suddaby. G., & Higgins, A. (2014). Blended learning: How teachers balance the blend of online and classroom components. *Journal of Information Technology Education*, *13*, 121-140. https://doi.org/10.28945/1968.
- Jnr, B. A., Kamaludin, A., Romli, A., Rafei, A. F. M., Phon, D. N. A. L. E., Abdullah, A., Ming, G. L., Shukor, N. A., Nordin, M. S. & Baba, S. (2021). An integrative framework to investigate the impact of blended learning adoption in higher education: A theoretical perspective. *International Journal of Technology Enhanced Learning*, 13(2), 182–207. https://doi.org/10.1504/ijtel.2021.114074.

- Kaur, M. (2013). Blended learning Its challenges and future. Procedia Social and Behavioral Sciences, 93, 612–617. https://doi.org/ 10.1016/j.sbspro.2013.09.248.
- Krasnova, L., & Shurygin, V. (2019). Blended learning of physics in the context of the professional development of teachers. *International Journal of Emerging Technologies in Learning (IJET)*, 14(23), 17-32. DOI: http://dx.doi.org/10.3991/ijet.v14i23.11084.
- Lalima, & Dangwal, K. L. (2017). Blended learning: An innovative approach. Universal Journal of Educational Research, 5(1), 129-136.
- Lothridge, K., Fox, J., & Fynan, E. (2013). Blended learning: Efficient, timely and cost effective. *Australian Journal of Forensic Sciences*, 45(4): 407–416. http://dx.doi.org/10.1080/00450618.2013.767375.
- Lu, O. H., Huang, A. Y., Huang, J. C., Lin, A. J., Ogata, H., & Yang, S. J. (2018). Applying learning analytics for the early prediction of students' academic performance in blended learning. *Journal of Educational Technology & Society*, 21(2), 220–232.
- Ma'arop, A. H., & Embi, M. A. (2016). Implementing blended learning in higher learning institutions: A review of the literature. *International Education Studies*, 9(3), 41-52. https://doi.org/10.5539/ies.v9n3p41.
- Mathews, A. & Ward, C. (2019). Effective practices of successful blended learning schools. *Frontiers in Education Technology*, 2(2), 88-107. http://dx.doi.org/10.22158/fet.v2n2p88.
- Moskal, P., Dziuban, C. & Hartman, J. (2013). Blended learning: A dangerous idea? Internet and Higher Education, 18, 15–23. http:// dx.doi.org/10.1016/j.iheduc.2012.12.001.
- Mula, J. (2015). Effects of e-blended instruction on grade 10 students performance and attitude towards geometry. *Ascendens Asia Journal of Multidisciplinary Research Abstracts*, 3(2).
- O'Connor, C., Mortimer, D., & Bond, S. (2011). Blended learning: Issues, benefits, and challenges. International Journal of Employment Studies (IJES), 19(2), 63-83.
- Oakley, G. (2016). From diffusion to explosion: Accelerating blended learning at the university of western Australia. *Blended Learning for Quality Higher Education* Paris, France: UNESCO.
- Oweis, T. (2018). Effects of using a blended learning method on students' achievement and motivation to learn English in Jordan: A pilot case study. *Education Research International, 2018,* 1-8. https://doi.org/10.1155/2018/7425924.
- Paul, P. (2021). Online education: Benefits, challenges, and strategies during and after COVID-19 in higher education. *International Journal on Studies in Education*, 3(2), 70-85. https://doi.org/10.46328/ijonse.32.
- Picciano, A. G., (2009). Blending with purpose: The multimodal model. *Journal of Asynchronous Learning Networks*, 13(1), 7-18. https://doi.org/10.24059/olj.v13i1.1673.
- Poon, J. (2013). Blended learning: An institutional approach for enhancing students' learning experiences. *MERLOT Journal of Online Learning and Teaching*, 9(2), 271-288. https://doi.org/10.4236/oalib.1107883.
- River, J., Currie, J., Crawford, T., Betihavas, V., & Randall, S. (2016). A systematic review examining the effectiveness of blending technology with team-based learning. *Nurse Education Today*, 45, 185–192. https://doi.org/10.1016/j.nedt.2016.08.012.
- Shu, H., & Gu, X., (2018). Determining the differences between online and face-to-face student–group interactions in a blended learning course. *The Internet and Higher Education*, *39*, 13-21. https://doi.org/10.1016/j.iheduc.2018.05.003.
- Shurygin, V. Y., & Sabirova, F. M. (2017). Particularities of blended learning implementation in teaching physics using LMS Moodle. *Revista ESPACIOS*, *38* (40), 1-11.
- Sicilia, N. (2018). Blended learning: The new normal and emerging technologies. *International Journal of Educational Technology in Higher Education, 15*(1), 1–16. https://doi.org/10.1186/s41239-017-0087-5.
- Singh, H.(2003). Building effective blended learning programs. *Challenges and Opportunities for the Global Implementation of E-Learning Frameworks*. Pennsylvania, PA: IGI Global
- Smyth, S., Houghton, C., Cooney, A., & Casey, D., (2011). Students experiences of blended learning across a range of postgraduate programmes. Nurse Education Today, 32(4), 464-468. https://doi.org/10.1016/j.nedt.2011.05.014.
- Szadziewska, A., & Kujawski, J. (2017). Advantages and disadvantages of the blended-learning method used in the educational process at the faculty of management at the university of Gdansk, in the opinion of undergraduate students, *Proceedings of ICERI2017 Conference*, Seville, Spain.
- Tayebinik, M., & Puteh, M. (2012). Blended learning or e-learning? International Magazine on Advances in Computer Science and Telecommunications (IMACST), 3(1), 103-110.https://doi.org/10.48550/arXiv.1306.4085.
- Thongchai, N. (2016). Impact of self-regulation and open learner model on learning achievement in the blended learning environment. *International Journal of Information and Education Technology*, 6(5), 343-347. https://doi.org/10.7763/ijiet.2016.v6.711.
- Wang, C. (2021). Employing blended learning to enhance learners' English conversation: A preliminary study of teaching with Hitutor. *Education and Information Technologies*, 26(2), 2407–2425. https://doi.org/10.1007/s10639-020-10363-5.

- Wright, B. M. (2017). Blended learning: Student perception of face-to-face and online EFL lessons. *Indonesian Journal of Applied Linguistics*, 7(1), 64-71.https://doi.org/10.17509/ijal.v7i1.6859.
- Zurita G., Hasbun B., Baloian N. & Jerez O. (2015). A blended learning environment for enhancing meaningful learning using 21st century skills. In, G. Chen, V. Kumar, Kinshuk, R. Huang, S. Kong (eds). *Emerging issues in smart learning*. Heidelberg, Germany: Springer.