













Impact on Higher Education and College Students in Dijlah University after COVID through E-learning

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Abstract. The higher education industry in Iraq had various challenges during the covid-19 outbreak, and this study looked at how remote learning and other relevant technology helped. During the new standard period, a platform with other internet providers helped to keep this sector afloat. The Corona crisis (COVID-19) had a huge impact on Iraqi education, which was revolutionized through the use of e-learning to lessen the danger of pupils contracting COVID-19. learning and its related technology platform, and other online outcomes enabled Iraq's critical higher education business

to survive the covid-19 crisis while also providing insight into the sector's difficulties in the new normal age.

Keywords: learning, higher education, Dijlah University, Impact, E-Learning, Online Platforms.

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1 INTRODUCTION

The unique coronavirus disease 2019 (COVID-19), which began in the Chinese city of Wuhan, has quickly spread over the world, putting billions of people on edge. The business, which was previously under stress from diminishing GDP and rising unemployment before the COVID-19-induced 21-day lockout, is now under even more pressure. Sudden employment losses total over 75% of India's significant 100 million migrant employees. The coronavirus epidemic has been declared a pandemic by the World Health Organization (WHO) [4]. A growing number of institutions throughout the world have postponed or cancelled all campus events such as workshops, conferences, sports, and other activities in light of the current COVID-19 outbreak. Universities are taking precautions to protect students and employees from sickness. With online learning, both the instructor and the student can choose their speed for teaching, as well as the extra versatility of creating a routine that works for everybody. There is no reason to offer something up because adopting a virtual learning system enables a better mix between work and studying. The move to online teaching platforms has already begun among faculty members (Chandasiri, O, 2020). An e-learning system is a cohesive group of interactive web services that supply knowledge, skills, and materials to teachers, students, and other people who work in education to assist and improve the administration or administration of instruction. A network for managing learning is a particular kind of e-learning system (LMS). The author of this review will focus on the probable impact of the devastating COVID-19 outbreak on early joined students and academic staff education and general health (Sahu P, 2020). Online education provides the additional option of setting up a routine that suits everybody's schedules while allowing the instructor and the student to establish their training time. As a consequence, adopting a virtual learning system makes it possible to mix work and study effectively, so nothing needs to be sacrificed. The study as well as the spread of information and comprehension via instruction, study, intellectual effort, or innovative artistic endeavor is the main duty of faculty members. They must diligently work to increase their intellectual proficiency and teaching efficacy.

2 LITERATURE REVIEW

The Educational Ideologies, as well as Theoretically Perspectives (EP-TP) Framework, is created for Primary School Education's self-cultivation (ECE). The education process entails deciding to learn, develop personally, and follow the teacher's instructions via moral and religious devotion (Sun, N, et, al, 2021). The Educational Ideologies, as well as Theoretically Perspectives (EP-TP) Framework, is created for Primary School Education's self-cultivation (ECE). The education process entails making a decision to learn, develop personally, and follow the teacher's instructions via moral and religious devotion (Chen, W, et, al, 2021). Higher education, as well as training, are being transformed swiftly by improvements in interaction instructional approach (ITM). ITM combines normal teacher-student engagement with web-based face-to-face training. The Integrated Training System with Basic Communication (ITF-HMI) for Online Learning and Advanced Educational Standards is examined in this study (Shang, H, et, al, 2022). A Human-computer Conversation Intelligent Academic Environment (HMI-aSES) for Rural Students is suggested in this research. It makes use of fog nodes with an optically foggy base to make quick judgments and take action with

the least amount of power and broadband possible. The configuration drastically reduces the power consumption of figurative sense (Na, W, et al, 2022).

2.1 Higher Education Sector with Other Agencies

In many ways, the future of higher education is apparent. Increased and strengthened collaboration on an international and global scale in the higher education sector, together with communities, legislators, and other stakeholders will be required. One may reboot the desktop, the broadband, or the network, as well as any residential equipment linked to the computer to fix a poor broadband connection. The summary of COVID-19 repercussions identified in this poll is eye-opening and a starting point for dealing with the long-term effects that will be addressed. The sector's future development must be guided by the lessons acquired thus far (Tadesse, S, et al, 2020).

2.2 Community and Educational System

These new crises are putting even greater strain on an already precarious educational system, limiting access to education. And highlights the possible impact of these crises on humanitarian needs at the levels of the person, family, society, and state. Taking into the count population categories that are more prone to have crises with disproportionate impact (Serin, H, 2022)

The challenges were declaring the academic year 2019-2020 a passing year generally, freezing, or continuing with online study. It was a difficult situation and hard options based on the circumstances that each country live in. In Iraq MOHESR (Ministry of Higher Education and Scientific Research) decided to continue study with online mode and what is available communications applications and platforms with full authority to accredit it. The authoritative 12-year instructional loop in Iraq consists of 6 years of basic school, which is required beginning at age 6, 3 years of middle school, accompanied through 3 years of supplementary schooling, which would be partitioned into an overall backfield of science as well as textual studies or upper secondary manufacturing, agrarian, or advertisement studies.

2.3 E-Learning System in Iraq

The "E-Learning method" has recently been widely embraced in Iraq institutions, particularly during the Covid-19 Pandemic period (Sabr, D. S, et al, 2017), however, several challenges remain in the manner in which this novel learning method, a general lack of resources as well as a lack of infrastructure of knowledge (Martin, F, et al, 2019). Post-secondary e-learning has been shown to increase concentration and productivity, which helps students achieve higher academic achievements. In fact, according to a study, teachers can enhance their recall rates with e-learning by up to 25–60%. The inability to interact face-to-face with the professor prohibits individuals from seeking input, creates feelings of isolation, and may make them feel less under stress.

Furthermore, the institution, departments, and instructors must provide students with high-quality resources. The applications, programs, or networks via which lecturers and students connect have a significant impact on their perceptions of online education. Students demand an online help desk where they may quickly handle connectivity or login issues, in addition to effective online class administration (Ameen, N, et al, 2019). Conversation forums aid in creating a sense of belonging and connectedness in a virtual classroom. Psychological ties can also be fostered by appearance and group. Additionally, they enhance student learning or can raise service quality with the program. Despite being one of the most behind the times in terms of acceptance, Iraq has made a significant effort to adopt an E-learning strategy, particularly from universities and other small businesses (Keshavarz, M. H, 2020).

2.4 E-Learning Platforms Used by Dijlah University College

Google Classrooms from Google workspace apps, and Google Classroom, a free online learning tool, have some benefits for both students and teachers. Without using paperwork, manage and organize courses, exercises, and assessments electronically. One can include content in the coursework from Google Drive, including YouTube channels, surveys, or other files. Give honest, feedback immediately. Send updates in the classroom streams as well as initiate conversations with questions to get people talking. The ease of use and accessibility across all platforms are only a few examples (Serin, H, 2019), (Barzani, S. H. H, 2021), efficient communication and sharing, accelerated assignment completion, and feedback. Students who have used Google Classroom may find it easier to transition to other learning management systems. for example, Blackboard or Canvas Students can also collaborate in Google Classroom in a variety of ways. Creating personalized tasks for a pupil or a smaller number of students is simple with Google Classroom. Certain individuals or subgroups in a class may receive projects that have been updated or are different. One can also speak individually with a pupil to determine if anyone has any concerns or need additional assistance. Teachers can conduct online conversations and group projects in the Classroom. Students can collaborate on Google documents that the teacher has made available to them. Because they are more familiar with technology, digital natives are more inclined to take charge of their education through it. There are numerous possibilities for making classroom learning more interesting and team-oriented. It allows teachers to include projects, such as movies and websites, in their classes and create collaborative group activities.

Zoom Video Communications from ZOOM, with a free plan to use in meetings with share files, features audio and video calls over the internet, plus the capacity to broadcast educational material in any format, i.e. the form of a PPT, Docx, or video presentation. Throughout a classroom discussion, Zoom enables users to change among different instructional styles (such as presentations, smaller group discussions, etc.) as often as necessary. Through the internet, you can participate remotely in the meeting., and you can choose to mute or enable other people to speak at the same time while you're there. And more record the session and share it afterward on any social media platform. The majority of colleges have used Zoom extensively to organize virtual worldwide meetings, conferences, and scientific presentations. Scientists from all over the world were able to overcome their social isolation and establish a secure communication channel (Jayasinghe, U, et al, 2015). The lines of interaction aren't secured by default. One could set the connections up to utilize the Secure Sockets Level (SSL) technology to protect access. For conversations across TCP/IP systems, SSL is an authentication scheme that offers privacy and data fidelity. Mostly used in seminars and conferences, especially the final year graduation project conference by the computer science department, which was the first time a student conference was held on the ZOOM platform at Dijlah College, in Iraq's universities.

2.5 Implemented Models in Iraqi Higher Education Dijlah University College

In Iraq, online teaching was the only way to finish the academic year. While many institutions' infrastructures are mostly unprepared for this quick and unplanned transformation, educators and students alike welcomed it. Following that, huge attempts were made to reorient education in the right direction. Any paradigm that was to be embraced required technology. Virtual teaching may be aided by technology and play an important role in teaching, but it cannot completely replace FTF instruction or achieve its goals (Buheji, M, et al, 2020). Virtual instruction is a type of training that uses blended learning as well as other online training technologies or networks to provide content wholly digitally or in portions of face-to-face programs. Digital format distributing educational content to learners is another aspect of virtual training. The level of involvement is what distinguishes virtual learning from eLearning. Although eLearning is far more self-paced, online knowledge allows for further communication among learners and teachers. It is up to each person to decide which option is superior.

3 E-LEARNING

This type of mode cannot be substituted. Because both instructors and students do not meet FTF in this style of teaching, they meet electronically and through writing. Face-to-face instruction improves psychological wellness or well, educational achievement, and the ability to participate in social interaction. Additionally, so many of our gifted but underprivileged learners find it challenging to budget for equipment and internet connection. A Mixed-Method Approach to Examining the Effect of e-Learning Technologies on Inspiring Learners as well as Improving Their Results Throughout COVID-19 To enhance academic outcomes and increase student engagement, e-Learning is a critical method in schooling. It's not only an issue of time or distance anymore, instead, a lack of immediate feedback and a powerful dedication to e-Learning are also two of the most prevalent issues to overcome.

3.1 Online Learning

students appear to be physically separated from their lecturers and claim a transference method, this could lead to active interaction between students and their lecturer. A patient & therapist may decide to employ passion as a therapeutic strategy in a solid therapeutic alliance. The therapist might assist anyone in projecting ideas or emotions about someone else onto them. After then, the counselor can utilize that exchange to learn more about the emotions or ideas. Students can exchange views on a variety of disciplines through social engagement in online learning. Group comments organized by students frequently encourage better comprehension and produce intriguing individual implementations of academic concepts and principles. Learning is unachievable unless students put what they've learned into practice, and most online content is theoretical and doesn't allow for practice [10].

3.2 Blended Learning

It refers to a teaching style that blends face-to-face classroom instruction with online distant learning. If you're seeking a broad meaning of the term "blended learning," it refers to courses that combine online and offline learning activities. All conventional, as well as digital education, involve a significant amount of effort. Both being able to give and receive criticism are crucial in these settings. Tasks play a significant role in the educational process. It's significant to remember that this strategy differs from others in that it includes both traditional on-campus and online training (Aucejo, E. M, et al, 2020).

4 STUDENTS IN CRISES

New crises corona, as expected, had a major detrimental effect on learners' present labor Engagement with the market and expectations for post-college employment outcomes (Teo, L. W, et al, 2020). The aforementioned modifications had a significant impact on students. The change from the set. The transition from schedule-based classes to flexible, at-home learning was made difficult to make at first (Byrnes, Y. M, et al, 2020). As a result, early detection of concerns and possible issues may aid career counselling, virtual curriculum building, and general assistance for medical students during this pivotal period (Hill, K, et al, 2020). It's tough to dispute that COVID-19 made us feel isolated during our studies. Using an online learning platform while juggling other personal responsibilities like family life, full-time work, and completing the course's obligatory teaching hours made it challenging to keep motivated at times. They were perplexed at times, unsure of how to proceed (Bowcock, R, et al, 2016). This absence of interaction between students and instructors during online learning was problematic. (Zepke, N, et al, 2014), (Zepke, N, et al,

2014). This strategy substantially lacked engagement between instructors and students, which is known to be critical to learning (Dash, S, 2019). Scientists are currently investigating the usability, cost-effectiveness, and student satisfaction of online education. (Mpaata, A. K, 2017).

Universities, colleges, institutions, and schools have been forced to close and migrate their business to the web, in preparation for the new plan to rescue the system. The significance of online platforms is among many other lessons learned from the global economic downturn for education.

5 A HIGHLIGHT OF AN ONLINE PLATFORM

- 1 will secure the information and protect it from falling into the wrong hand or being misused.
- 2 One platform with all universities.
- 3 Need to pay for the plan or packages that come with global platforms per month.
- 4 Refresh the local economy.
- 5 Regulatory authorities can have reports and statics.
- 6 National educational database.
- 7 Researches bank.
- 8 National archive.
- 9 Can access it with the intranet even if there is no internet.

5.1 Questionnaire

A questionnaire was designed using a google form created inside the duc.edu.iq domain with open access from inside and outside the university domain, No sign-in with email is required, and the form in (yes, no, and maybe) style to answer questionnaire questions, by selecting YES or NO it means the student positive and confident to response, in case students are not sure about the question, option MAYBE provides him the flexibility to not respond with YES or NO.

The questionnaire from been sent to Dijlah university's students from a variety of departments at all stages (First, Second, Third, and Fourth) among three other universities (Al-Banian University, Al-Turath University, and Al-Mashreq University) all mentioned universities are located in Baghdad, Iraq. In general, the questionnaire aims to measure students' feelings about studying in online education mode and how they engaged with e-Learning, using a variety of questions designed for that purpose.

5.2 Research Methodology

1-Developing an online questionnaire survey.

A systematic inquiry that is completed online by the intended audience typically by completing such a webpage is characterized as an online poll. Internet polls' duration and structure might differ.

2- Potential students, who enrolled during the Covid-19 quarantine, which is currently the third stage going to the fourth stage at the time of questionnaire unleashed.

3- Potential students who enrol still during the Covid-19 crisis and had to change

4- Analyzing data with MS excel program.

6 RESULT AND DISCUSSION

As Dijlah university college among many other universities has already started practicing online teaching mechanisms to resume study during Covid-19 (Basilaia, G, et al, 2020). With all efforts to train users both students and instructors plus usage statics [23],

A survey of 1500 Students, focused on students' experience with online, e-learning teaching mode, and Traditional FTF mode (Gowda, R. S, et al, 2017), The survey covered a variety of questions to muser students' acceptance and engagement with the online education system.

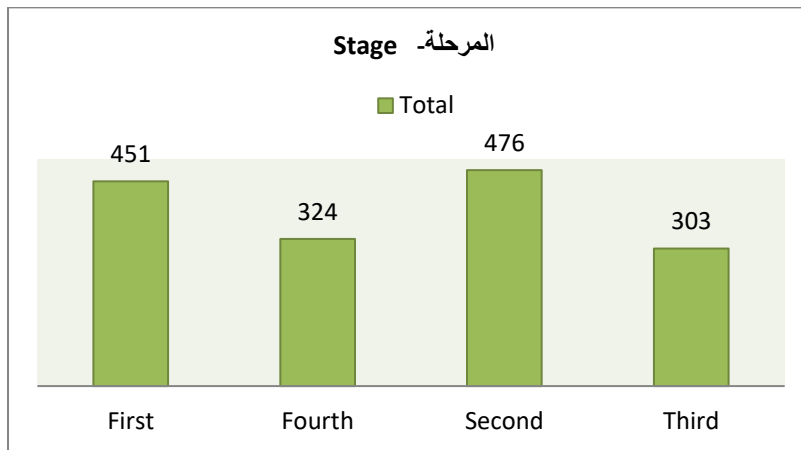


Figure 1: Stage of study.

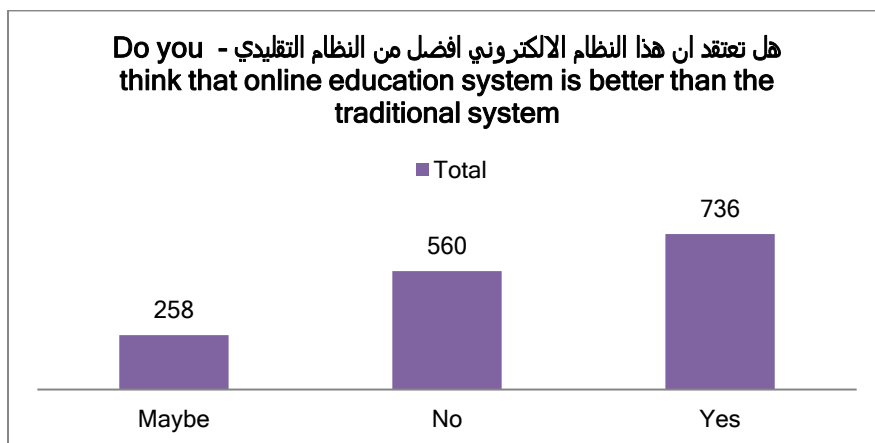


Figure: 2 EL vs FTF.

Chart1 shows the number of engaged students among stages (Binti Pudir, N. A, et al, 2021) (Bikovska, D, 2021), first and second sage has the highest number of hit by 451 students in the first stage and 476 students in the second stage, where third, fourth stage recorded over 300 students (Sánchez-Casado, N, et al, 2018). As Figure 1 shows the number of hits has Similar views between the first and second stages, the same applies to the third and fourth stages (Ahmadov, F, et al, 2021). Figure 2 reads the important distinction between viewpoints (Le, P. T. T, 2021, March) about

thinking that the online education system is better than the traditional system, where YES record 736 students and this is the high number of engaged students, where the lower number was 258 students prefer MAYBE, and 560 students go for NO.

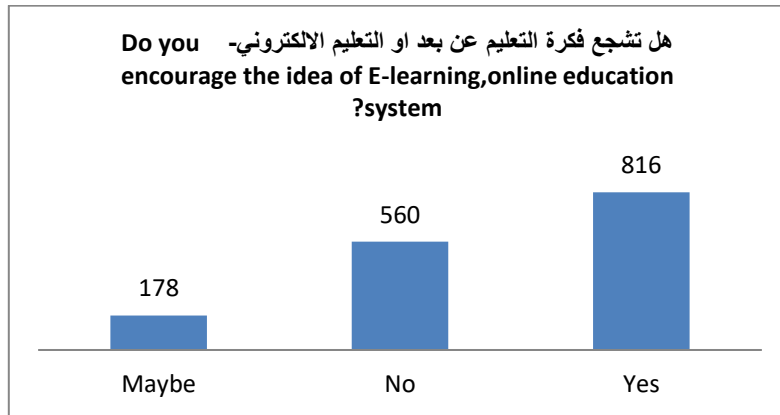


Figure 3: Student enrolment.

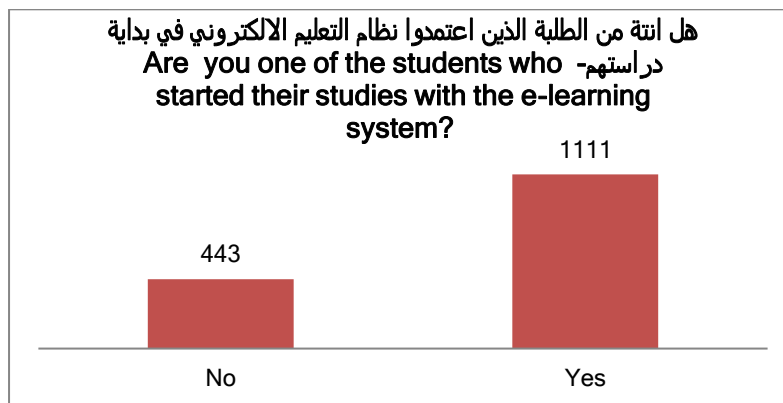


Figure 4: EL system.

Figure 3 showed that 71.4% of the total number of students started their studies with the e-learning system and 28.6% started their studies with Blended learning (FTF + EL) (Drieghe, L, et al, 2022). This indicates they are qualified to give a mature opinion about their experience with the education system in both modes (Trimukhe, M. D, et al, 2021).

Figure 4 showed that 52.5% encourage the idea of E-learning, an online education system, whereas 36.1% reject the idea, however, 11.4% are not sure about that idea (Jastram, S. M, et al, 2022).

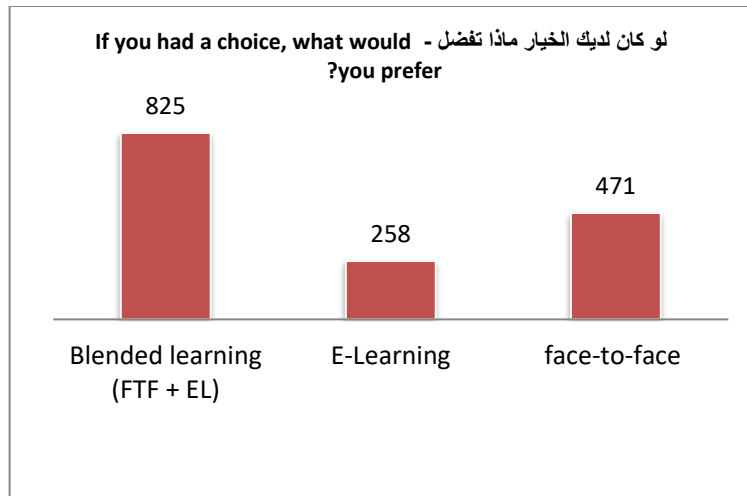


Figure 5: Preference.

Figure 5 focuses on student's preference if they had the luxury (Thakan, S, et al, 2022), to a choice between Blended learning (FTF + EL), face-to-face, and E-Learning, As shown above in chart 5, 53.1% prefer to study in Blended learning mode, 30.4 seeks for traditional way face-to-face mode and 16.6% would like to study with E-Learning mode Table 1.

Stage -المرحلة-	هل تشجع فكرة التعليم عن بعد او -E-Learning Do you encourage the idea of online education ? system			هل انتة من الطلبة الذين اعتمدوا نظام E-Learning في بداية دراستهم- you one of Are the students who started their studies with the e-learning ?system			لو كان لديك الخيار ماذا تفضل If you had - a choice, what would you ? prefer			هل تعتقد ان هذا النظام الالكتروني افضل من النظام التقليدي Do you - think that the online education system is better than the traditional system		
	YES	NO	MAYBE	YES	NO	FTF + EL	face- to-face	E- Learning	YES	NO	MAYBE	
First	18%	8%	3%	22 %	7%	17%	6%	6%	18%	7%	4%	
Second	17%	10%	3%	27 %	4%	17%	8%	6%	16%	10%	6%	
Third	9%	9%	2%	15 %	4%	9%	7%	3%	7%	9%	3%	
Fourth	18%	9%	3%	8 %	13%	10%	9%	2%	6%	10%	4%	

Table 1: Analyzing data.

7 CONCLUSION

College students today face a plethora of new and more difficult problems than ever before [19]. This study looked at online learning in higher education institutions and (Dijlah university college and other private universities) especially during the covid-19 epidemic, with a particular focus on Google workspace applications for synchronized & unsynchronized learning, and Zoom Meeting for seminars, meetings, and conferences, as the most commonly used platforms. When it comes to online education, there is still more work to be done, especially in industrialized nations. However, returning to university and resuming campus life with increased caution during final exams was a significant step and demand from students and teachers. Several drawbacks and their overcoming process is discussed in this study. However, in the future, the stated drawbacks will be improved with the help of novel technologies.

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REFERENCES

- [1] Ahmadov, F.; Zeynalova, U.; Bayramova, U.; Mammadov, I.: Analysis of educational impact on women entrepreneurs in sustainable social business, the case of Azerbaijan, Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(6), 2021, 1847-1856. <https://doi.org/10.17762/turcomat.v12i6.4171>
- [2] Ameen, N.; Willis, R.; Abdullah, M. N.; Shah, M.: Towards the successful integration of e-learning systems in higher education in Iraq: A student perspective. British Journal of Educational Technology, 50(3), 2019, 1434-1446. <https://doi.org/10.1111/bjet.12651>
- [3] Aucejo, E. M.; French, J.; Araya, M. P. U.; Zafar, B.: The impact of COVID-19 on student experiences and expectations, Evidence from a survey, Journal of Public Economics, 191, 104271. <https://doi.org/10.1016/j.jpubeco.2020.2020.104271>
- [4] Barzani, S. H. H.: Students' perceptions towards online education during COVID-19 pandemic: An empirical study, International Journal of Social Sciences & Educational Studies, 8(2), 2021, 28-38. <https://doi.org/10.23918/ijsses.v8i2p28>
- [5] Basilaia, G.; Kvavadze, D: Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia, Pedagogical Research, 5(4).2020, <https://doi.org/10.29333/pr/7937>
- [6] Bikovska, D.: An examination into how museums communicate about and engage the audience on climate change and environmental issues on their Facebook platforms, 2021.
- [7] Binti Pudir, N. A.; Jinsin, J. J.: use of interactive online quizzes in engaging students to learn English grammar, In the eleventh annual international symposium of foreign language learning (11th aisofoll), 2021, (p. 247).
- [8] Bowcock, R.; Peters, K.: Discussion paper: conceptual comparison of student and therapeutic engagement, Nurse Education in Practice, 17,2016, 188-191. <https://doi.org/10.1016/j.nepr.2015.10.010>

- [9] Buheji, M.; Buheji, A.: Planning competency in the new Normal–employability competency in a post-COVID-19 pandemic, *International Journal of Human Resource Studies*, 10(2), 2020, 237-251. <https://doi.org/10.5296/ijhrs.v10i2.17085>
- [10] Byrnes, Y. M.; Civantos, A. M.; Go, B. C.; McWilliams, T. L.; Rajasekaran, K.: Effect of the COVID-19 pandemic on medical student career perceptions: a national survey study, *Medical education on line*, 25(1), 2020, 1798088. <https://doi.org/10.1080/10872981.2020.1798088>
- [11] Chandasiri, O.: The COVID-19: impact on education, *Journal of Asian and African Social Science and Humanities*, 6(2), 2020, 37-42.
- [12] Chen, W.; Samuel, R.; Krishnamoorthy, S.: Computer Vision for Dynamic Student Data Management in Higher Education Platform, *Journal of Multiple-Valued Logic & Soft Computing*, 2021, 36.
- [13] Dash, S.: Google classroom as a learning management system to teach biochemistry in a medical school, *Biochemistry and Molecular Biology Education*, 47(4), 2019, 404-407. <https://doi.org/10.1002/bmb.21246>
- [14] Drieghe, L.; Orbie, J.; Potjomkina, D.; & Shahin, J.: Participation of civil society in EU trade policy making: how inclusive is inclusion?. *New Political Economy*, 27(4), 2022, 581-596. <https://doi.org/10.1080/13563467.2021.1879763>
- [15] Gowda, R. S.; & Suma, V.: A comparative analysis of traditional education system vs. e-Learning. In 2017 International Conference on Innovative Mechanisms for Industry Applications (ICIMIA) 2017, 567-571, IEEE. <https://doi.org/10.1109/ICIMIA.2017.7975524>
- [16] Hill, K.; Fitzgerald, R.: Student perspectives of the impact of COVID-19 on learning, *All Ireland Journal of Higher Education*, 12(2) 2020.
- [17] Jastram, S. M.; Otto, A. H.; Minulla, T.: Diverse Organizational Adoption of Institutions in the Field of Corporate Social Responsibility, *Journal of Business Ethics*, 2022, 1-16. <https://doi.org/10.5465/AMBPP.2022.10512abstract>
- [18] Jayasinghe, U.; Dharmaratne, A.; Atukorale, A.: Students' performance evaluation in online education system Vs traditional education system, In Proceedings of 2015 12th International Conference on Remote Engineering and Virtual Instrumentation (REV) 2015, (pp. 131-135). IEEE. <https://doi.org/10.1109/REV.2015.7087277>
- [19] Keshavarz, M. H.: A Proposed Model for Post-Pandemic Higher Education, *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal*, 3(3), 2020 1384-1391. <https://doi.org/10.33258/birle.v3i3.1193>
- [20] Le, P. T. T.: Incorporating Internet-Based Applications in Teaching Integrated Language Skills to EFL Students, In 17th International Conference of the Asia Association of Computer-Assisted Language Learning (AsiaCALL 2021), 2021, 48-53, Atlantis Press. <https://doi.org/10.2991/assehr.k.210226.006>
- [21] Martin, F.; Budhrani, K.; Wang, C.: Examining faculty perception of their readiness to teach on line, *Online Learning*, 23(3), 2019, 97-119. <https://doi.org/10.24059/olj.v23i3.1555>
- [22] Mpaata, A. K.: Youth personality development and the ultimate character: The neglected role of educators, *International Journal of Youth Economy*, 1(1), 2017, 105-118. <https://doi.org/10.18576/ijye/010107>
- [23] Na, W. E. I.; Feng, Y. A. N. G.; Muthu, B.; Shanthini, A.: Human machine interaction-assisted smart educational system for rural children, *Computers and Electrical Engineering*, 99, 2022, 107812. <https://doi.org/10.1016/j.compeleceng.2022.107812>
- [24] Sabr, D. S.; Neamah, A. F.: Notice of Violation of IEEE Publication Principles: Challenges and Opportunities of E-Learning in Iraq. In 2017 International Conference on Computer and Applications (ICCA), 2017, 259-265, IEEE. <https://doi.org/10.1109/COMAPP.2017.8079730>

- [25] Sahu, P.: Closure of Universities Due to Coronavirus Disease 2019 (COVID-19): Impact on Education and Mental Health of Students and Academic Staff, *Cureus* 12(4): e7541. doi:10.7759/cureus, 2020 ,7541. <https://doi.org/10.7759/cureus.7541>
- [26] Sánchez-Casado, N.; Tomaseti-Solano, E.;Martínez-Caro, L.: linking the secondary school with university: a project for engaging students, In *INTED2018 Proceedings*, 2018, (pp. 6469-6473). IATED. <https://doi.org/10.21125/inted.2018.1524>
- [27] Serin, H.: Flipped classrooms in teaching method courses at universities, *International Journal of Academic Research in Business and Social Sciences*, 9(1), 2019, 573-585. <https://doi.org/10.6007/IJARBS/v9-i1/5459>
- [28] Serin, H.: Impact of Pandemic COVID-19 on Higher Education in Iraq, *International Journal of Social Sciences & Educational Studies*, 9(1),2022,78-90. <https://doi.org/10.23918/ijsses.v9i1p78>
- [29] Shang, H.;Sivaparthipan, C. B.: Interactive teaching using human-machine interaction for higher education systems, *Computers and Electrical Engineering*, 100, 2022, 107811. <https://doi.org/10.1016/j.compeleceng.2022.107811>
- [30] Sun, N.; Kumar, P. M.; Manickam, A.; Educational philosophies and theoretical perspective for self-cultivation in early childhood education, *Aggression and Violent Behavior*, 2021 ,101718. <https://doi.org/10.1016/j.avb.2021.101718>
- [31] Tadesse, S.; Muluye, W.: The Impact of COVID-19 Pandemic on Education System in Developing Countries: A Review. *Open Journal of Social Sciences*, 8, 2020, 159-170. <https://doi.org/10.4236/jss.2020.810011>
- [32] Tadesse, S.; Muluye, W.: The impact of COVID-19 pandemic on education system in developing countries: a review, *Open Journal of Social Sciences*, 8(10), 2020, 159-170. <https://doi.org/10.4236/jss.2020.810011>
- [33] Teo, L. W.; Pang, T.; Ong, Y. J.; Lai, C.: Coping with COVID-19: perspectives of student radiographers, *Journal of medical imaging and radiation sciences*, 51(3), 2020, 358-360. <https://doi.org/10.1016/j.jmir.2020.05.004>
- [34] Thakan, S.; & Mehta, A.: Effect of mode of education on students: burnout and imposter syndrome 2022.
- [35] Trimukhe, M. D.; Chikate, A.: Scientist's Perception about the Choice of the Journals for their Research Publication, *Research Journey*, 2021, 22.
- [36] Zepke, N.; Leach, L.; Butler, P.: Student engagement: students' and teachers' perceptions, *Higher Education Research & Development*, 33(2),2014,386-398. <https://doi.org/10.1080/07294360.2013.832160>