

# مجلة جامعة سها للعلوم الإنسانية Sebha University Journal of Human Sciences



Journal homepage: https://sebhau.edu.ly/journal/index.php/johs

# Teaching French as a Foreign Language at the University of Benghazi During the COVID-19 Pandemic: A Case Study

Eman Mahmoud A. Mursi

Faculty of Languages, University of Benghazi, Libya

### **Keywords:**

# Accessibility Challenges COVID-19 Developing countries Distance learning Higher education Online instruction Recommendations Technology

# ABSTRACT

The COVID-19 pandemic resulted in the closure of schools and universities, disrupting the education of nearly 1.6 billion students globally. The sudden transition from traditional face-to-face classes to online instruction was particularly challenging for developing countries like Libya, where educational institutions lacked the necessary digital tools and students had limited access to devices and reliable internet. In response, the higher education system in Libya scrambled to meet the technology needs to facilitate distance education. This case study, focusing on the University of Benghazi, examines the shift to entirely online teaching and learning, highlighting the experiences gained by faculty members during the crisis and evaluating ways to improve distance learning and remote training for professors and students. The study also provides recommendations for academic institutions to quickly shift to an online learning modality, if needed, and evolve their curriculum to offer appropriate online courses.

# تعليم اللغة الفرنسية كلغة أجنبية في جامعة بنغازي خلال جائحة كوفيد-19: دراسة حالة

ايمان محمود أحمد مرسى

كلية اللغات، جامعة بنغازي، ليبيا

# الكلمات المفتاحية:

التحديات التعليم الإلكتروني التعليم العالي التكنولوجيا التكنولوجيا التوصيات الإتاحة الدول النامية كوفيد-19

# الملخص

أدت جائحة كوفيد-19 إلى إغلاق المدارس والجامعات، مما عطل تعليم حوالي 1.6 مليار طالب حول العالم. الانتقال المفاجئ من الفصول التقليدية وجهاً لوجه إلى التعليم عبر الإنترنت كان تحدياً خاصاً للدول النامية مثل ليبيا، حيث كانت المؤسسات التعليمية تفتقر إلى الأدوات الرقمية الضرورية و كانت إمكانية الطلاب محدودة للوصول إلى الأجهزة والإنترنت الموثوق به. كرد فعل، عمل نظام التعليم العالي في ليبيا على سد الحاجة لتكنولوجيا التعليم عن بُعد بشكل عاجل. هذه الدراسة الحالية، والتي تركز على جامعة بنغازي، تبحث في الانتقال إلى التعليم والتعلم عبر الإنترنت بالكامل، مُسلطة الضوء على التجارب التي اكتسها أعضاء هيئة التدريس خلال الأزمة وتقييم الطرق لتحسين التعلم عن بُعد والتدريب عن بُعد للأساتذة والطلاب. كما توفر الدراسة توصيات للمؤسسات الأكاديمية للانتقال السريع إلى وضعية التعلم الإلكتروني عند الحاجة، وتطوير المناهج الدراسية لتقديم دورات عبر الإنترنت بشكل مناسب.

# 1. Introduction

On March 11<sup>th</sup>, 2020, the World Health Organization (WHO) declared the novel coronavirus (COVID-19) a global pandemic (WHO, 2022). According to the Centers for Disease Control & Prevention (CDC), the reported COVID-19 virus can rapidly spread from one person to another, causing mild to severe respiratory illness that can even result in death (CDC, 2022). Rumors suggest that the COVID-19 virus may have originated in a laboratory in Wuhan city,

China (Iwendi, Alsadig, Isa, Oladunni, Musa, Ahmadi, Adebisi & Lucero-Prisno, 2021). The first human transmission occurred in early December 2019, and within two months, the disease spread worldwide, with confirmed cases in almost all countries and territories (Iwendi et al., 2021). The Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU) created an interactive dashboard to track COVID-19 cases and deaths in real-

E-mail addresses: eman.m.mursi@gmail.com

<sup>\*</sup>Corresponding author:

time. As of February 20th, 2023, 1:00 AM Eastern Standard Time (EST), 6,862,902 people worldwide have died from the COVID-19 outbreak (Johns Hopkins Coronavirus Resource Center [JHCRC], 2023). While the COVID-19 pandemic is primarily a global public health crisis, its full implications are still unfolding (Lancaster & Arango, 2021).

The global impact of the highly contagious COVID-19 virus has been significant and far-reaching (Dhawan, 2020; Zarei & Mohammadi, 2021). It has led to unprecedented disruptions in the economic, social, and geopolitical aspects of many countries worldwide, causing psychological distress among their citizens (Skar, Graham, & Huebner, 2021; Soncini, Politi, & Matteucci, 2021). To mitigate the spread of the virus and decrease the number of fatalities, most countries have implemented various containment measures, such as lockdowns, quarantines, travel restrictions, face masks in public, and physical distancing requirements (Gershman, 2020; Skar et al., 2021; Soncini et al., 2021). The education sector, including universities, colleges, schools, and learning centers, has been particularly hard-hit by the pandemic (Zarei & Mohammadi, 2021).

According to UNESCO (2022), nearly 1.6 billion students worldwide across all levels of education (94%) were adversely affected by the immediate closure of schools and universities during the first peak of the COVID-19 outbreak in March and April 2020. This pandemic has created significant disruptions to global education systems in modern history (UNESCO, 2022). To comply with stay-at-home guidelines, educational institutions were compelled to shift from in-person to remote instruction on short notice to mitigate learning losses for an entire generation of young and adult students. This abrupt transition to remote teaching required educational stakeholders to make strenuous efforts to ensure learning continuity and employ technology effectively (Adnan & Anwar, 2020). Furthermore, developing countries encountered even greater challenges than developed countries, with underdeveloped countries facing particularly considerable difficulties during the sudden transition from face-to-face to online learning (Adnan & Anwar, 2020; Zarei & Mohammadi, 2021).

# 2. Objectives

This descriptive case study presents the challenges and successes of implementing e-learning during the COVID-19 pandemic for faculty members. The author offers a narrative descriptive dialogue of their experiences as a lecturer of the French language during the enforced transition to fully online education. The article reflects on the impact of the pandemic on teaching the French language as a foreign language at the French Department and the Department of European and Asian Languages in the Faculty of Languages, University of Benghazi. The study reports experiences and reflections from online courses offered in the Spring and Fall semesters of 2020. It explores improvements in defective infrastructures and increased technical knowledge of distance learning among individuals involved in the transition. Additionally, the study examines the use of Telegram as a tool for remote teaching and the obstacles faced by Libyan higher education system in implementing online teaching and learning. The study concludes with an exploration of changes in working life and subsequent changes in skills, offering a new perspective on online foreign language teaching in Libya.

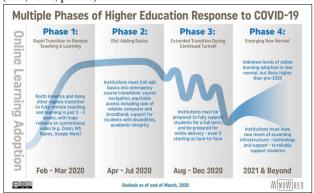
# 3. Literature Review

Distance learning has a rich history, dating back to the early 1700s (FNU, 2019). In its early form, known as correspondence learning, course materials were sent via mail and students were able to submit assignments and ask questions to their professors in a similar manner (FNU, 2019). The origins of distance learning can be traced back to Caleb Phillips, an American teacher who advertised a correspondence course in shorthand in 1728 (Ferrari, 2020). Sir Isaac Pitman, who taught shorthand in the 1840s through the mailing of texts transcribed into shorthand on postcards, is considered the first to provide a distance education course in the modern sense (Ferrari, 2020).

In the 1920s, Penn State radio marked 125 years of distance learning (FNU, 2019). In the 1950s, New York University partnered with CBS-TV to produce "Sunrise Semester," which broadcasted lectures from NYU faculty to the public (FNU, 2019). The Open University, which offered distance learning in Great Britain, was established in 1969 and is the largest such university in the UK (Ison, 2001). The University has pioneered delivery methods that have evolved as technology has advanced.

The 1980s saw the beginning of online education when Phoenix, which was accredited in 1978, began offering an online program that became the school's primary focus by 1989 (FNU, 2019). In the 2010s, data shows that online learning enrollment rose by almost one million students from a year earlier (Allen & Seaman, 2010). In 2020, e-learning became the core method of teaching the curriculum during the Covid-19 pandemic.

The COVID-19 pandemic caused a sudden and unplanned shift from in-person classes to online instruction, which put immense pressure on all stakeholders involved in education. As a result, educators have proactively sought ways to reshape curricula to adopt and enhance online learning. According to Hill (2020), higher education institutions underwent four phases in response to the pandemic, in terms of courses switching to remote delivery strategies (see Figure 1). The first phase was characterized by a rapid transition to remote teaching and learning, with institutions making an all-hands-on-deck movement to remote delivery, often relying on synchronous video, with massive changes in just four weeks. The second phase involved the (re)addition of basics into emergency course transitions, such as course navigation, equitable access, support for students with disabilities, and academic integrity. During the third phase, institutions had to be prepared to support students for a full term and deliver courses online, even if starting as face-to-face. The fourth phase is the emerging new normal, which will have unknown levels of online learning adoption, but it is likely to be higher than pre-COVID-19 days. Institutions must have new levels of e-learning infrastructure - technology and support - to reliably support students (Hill, 2020, para. 8).



**Fig.1:** Four Phases of Higher Education Response. Adapted from Revised Outlook for Higher ED's Online Response to COVID-19, 2020. Retrieved from https://philonedtech.com/revised-outlook-for-higher-eds-online-response-to-covid-19/.

Hill's (2020) predictions were accurate, particularly in developed countries, where educators relied on synchronous instruction and later moved towards combining synchronous and asynchronous elearning in strategic ways to improve online learning experiences. Different approaches were implemented in various countries to support equitable access to the internet and computer devices for students at all levels. Many programs were committed to supporting students with disabilities and ensuring academic integrity in online education.

Dhawan (2020) conducted a systematic review study to examine the significance of online learning during periods of crisis and pandemics, such as the COVID-19 outbreak. The researcher investigated the emergence of EdTech start-ups during times of natural disasters and pandemics and argued that educational

institutions must be resilient during crises and explore new directions for teaching and learning. The study reported that e-learning allowed for the continuation of teaching and learning in three universities severely damaged by natural catastrophes: the University of Camerino in 2016, the University of Canterbury in 2011, and Southern University at New Orleans in 2005. The study concluded that e-learning can create equitable and inclusive education during crises and overcome barriers in difficult times, but comprehensive training and the design of integrated platforms are necessary to achieve quality education through e-learning.

Zarei and Mohammadi (2021) investigated the challenges created by the sudden shift to e-learning during the COVID-19 pandemic, with a focus on differences between developing and developed countries. The study highlighted some opportunities presented by the pandemic, such as insight into shortcomings and increased preparedness for future crises, including technological improvements in educational infrastructure for distance learning. Learners and teachers also improved their digital knowledge to participate in online classes. Furthermore, the pandemic led to many innovations in the promotion and development of e-learning methods, such as approaches to minimize cheating in digital examinations and technological innovations driven by improved digital collaborations that helped to bring about scientific achievements for the eradication of the pandemic. China's experience in fighting SARS and MERS was also cited as an advantage in dealing with the transition from traditional education to digital education during the COVID-19 pandemic (Zarei & Mohammadi, 2021).

Over the last two years, there has been a notable surge in the adoption of online education (Gaebel, Zhang, Stoeber, & Morrisore, 2021). Higher education institutions have been championing diverse forms of blended learning, such as web-enhanced, flipped, hyFlex, hybrid, and station-based models (Gaebel et al., 2021). However, the widespread usage of digital learning in higher education is still a subject of deliberation, as pointed out by Gaebel et al. (2021).

The following are a range of terms that have been utilized to describe remote education:

- Online Course: This refers to a modern format of courses that are conducted over the Internet, allowing students to participate in classes from the comfort of their homes. Such courses may be offered in either synchronous or asynchronous formats (Friedman & Moody, 2020).
- Distance Education: Also referred to as e-learning, it is an
  educational format in which teachers and students are
  separated by time and space during instruction.
  Communication between them is accomplished by using
  multimedia technologies (Friedman & Moody, 2020).
- Distance Education Courses and Programs: These are classes that are taught for credits and certificates, and in which students are separated from the instructor and the educational institution by time and space. These courses and programs are accessible to students through the use of technology-based educational materials (Friedman & Moody, 2020).

Online learning has ushered in a novel pedagogical approach that leverages digital tools and immersive technologies as significant contributing factors. Presented herein is a brief synopsis of the classifications of electronic learning curricula:

- Web-Enhanced Learning: This is an instructional format in which online educational tools are used to enhance inperson classes that take place on campus.
- Face-to-Face Education: This is the traditional mode of instruction, in which a teacher and a group of students attend classes in person for a set time.
- Flipped Classroom: This is a reserved course in which students are introduced to content through recorded lectures at home, and then they are expected to apply, practice, and elaborate learned concepts in in-person class sessions.

- Hybrid Learning: Also known as blended learning, this is
  a course in which half of the curriculum is taught in a
  traditional classroom setting, while the other half is
  delivered to students remotely. This approach combines the
  best of face-to-face and online learning, offering students
  flexibility.
- Hybrid Rotation or Station-Based Model: This model blends digital and traditional teaching methods, allowing for reduced student density in a classroom. Students rotate in groups on a fixed schedule during a course time block, while an instructor's time is divided between students working at home and those in class.
- HyFlex Learning: This instructional approach integrates face-to-face and online learning simultaneously into a single course format. It allows for the most flexibility for students, who may choose to participate in-class activities as a face-to-face learner, a flexible learner (a mix of both online and face-to-face learning), an asynchronous distance learner (pre-recorded lectures), or a synchronous distance learner (live video streams).
- Asynchronous Distance Education: This is a mode of learning in which an instructor and students interact from different places and at different times. Instructors post course materials in advance, and students work at their own pace towards the completion of course requirements, regardless of their time zone or location.
- Synchronous Distance Education: This occurs when the
  instructor and students gather and interact at the same time
  but from different physical locations. Students are required
  to log in, participate, and engage in a virtual live session
  during set times, along with their peers and instructor.

# 4. The Initiation of Pandemic Spread in Libya

According to the World Economic Situation and Prospects [WESP] (2014), Libya is a developing country situated in the Maghreb region in North Africa. The COVID-19 pandemic has significantly impacted Libya, as highlighted by Iwendi et al. (2021). On March 14th, 2020, the Libyan Interim Government declared the ongoing COVID-19 disease to be a national public health emergency, coinciding with the reporting of the first case of COVID-19 in the country (Bredan & Bakoush, 2021; Iwendi et al., 2021). Consequently, most facilities in the country were shut down in response to the pandemic. Despite all precautions, the latest available data shows that 507,170 individuals have been infected, and 6,437 have died, with most fatalities occurring among seniors (JHCRC, 2023). The COVID-19 pandemic has placed Libya in an extremely vulnerable position as the country's socio-economic structure and healthcare system were already severely weakened by the civil war in 2011-2014 (Iwendi et al., 2021). The pandemic has disrupted many sectors of the country, including traditional forms of education, which was already facing severe educational challenges before the outbreak of the pandemic, with the situation likely to have worsened considerably (Iwendi et al., 2021).

In March 2020, when the COVID-19 virus began to spread, universities across the country were mandated to shut down their campuses to adhere to social-distancing protocols. These institutions had to shift to distance learning approaches to continue educating students. Most educational institutions in Libya relied solely on traditional classroom lectures and lacked digital resources and financial infrastructure, as is typical of developing countries. Faculty members, in many cases, were hesitant to move from traditional teaching methods to a digital format. This sudden shift to online teaching and learning was unprecedented and not prepared for, resulting in faculty members experiencing significant challenges in the transition to distance teaching and learning in higher education during the COVID-19 pandemic (Iwendi et al., 2021).

On April 12<sup>th</sup>, 2020, in accordance with the directives given by the Ministry of Education, the Supreme Council of Higher Education mandated public institutions of higher education to develop audio or video recordings of course lectures for college students to access at their own pace. Concurrently, national educational radio and

television programs were aired for elementary, middle, and high school students (Muman & El-Jeadi, 2021).

# 5. Prior to the COVID-19 Pandemic

The University of Benghazi, established in 1955 in East Libya, is a significant public institution that has an enrollment of over 88,000 students. However, since the tumultuous transitional period that followed Libya's 2011 uprising, the University of Benghazi has suffered from severe funding cuts, and its society has become increasingly isolated from the academic world. Taha (2016) reported that violence has greatly impacted the university, as intense fighting broke out on May 16, 2014, in the city of Benghazi between the National Libyan Army [LNA] and newly formed militias. The university's primary campus turned into a battlefield when these militias occupied its land, using it to launch rockets at the city and train their supporters. Consequently, most of the university's buildings were severely damaged, with some partially or entirely collapsed. Under these circumstances, regular classes were entirely suspended in 2014 and resumed one year later, but in different locations, mainly school buildings, in Benghazi. In fact, during the armed conflicts, a significant number of students, faculty, and staff were forced to flee their homes and property, either temporarily or permanently.

In 2016, following the diaspora caused by the conflict, the colleges of Languages, Arts, Economics, Media, Education, and Physical Education of the University of Benghazi were relocated to temporary premises owned by the university to resume their educational and student services. The temporary location was situated in the official on-campus student housing department designated for residential students.

The devastation caused by the war was evident as many university buildings were destroyed or severely damaged. The administrative building of the University of Benghazi, once a lively and energetic place, now stood in ruins, including the former building of the French Language Department where the present study's author pursued their undergraduate studies. The French Department, in particular, faced challenges after the Libyan rebellion, as a lack of qualified and experienced professors resulted from the departure of native and near-native speaking faculty members with extensive experience in teaching French (all foreigners) and the forced retirement of some productive faculty members due to political affiliations. The French Language Department library was also burned, resulting in the loss of valuable textbooks and hard copies of student research. The extent of the destruction raises questions about the possibility of rebuilding these important places of learning.

In October 2019, the author provided instruction on French phonetics and phonology to first and second-semester students. Due to the destructive effects of war on university buildings and facilities, the acoustics lab was no longer available for student use, potentially having a negative impact on students' listening and speaking abilities. Despite the challenges, the author improvised and conducted classes in a makeshift room, utilizing audio CDs to supplement course materials. However, some students faced difficulties obtaining required textbooks and accompanying audio CDs. These challenges included financial constraints and practical issues such as the lack of CD players in modern devices. As a result, students were often unable to practice audio recordings independently, hindering their progress. The author overcame this challenge by streaming audio materials wirelessly to a soundbox shared with the class, providing students with additional listening practice. Despite efforts to enhance teaching methods, the lack of technology in language instruction remained an issue. The following semester, the French Language Department moved to a new faculty at the University of Benghazi, enabling expanded collaboration with other disciplines and the continuation of postgraduate coursework. However, there were no significant changes in the curriculum or teaching technologies at the undergraduate level.

# 6. Amid COVID-19 Outbreak

The onset of the COVID-19 pandemic prompted the Ministry of Education to announce that all classes would be conducted online. However, our university did not have an established e-learning platform to facilitate this shift. Instead, faculty were tasked with recording lectures, burning them onto CDs, and submitting them to their departmental secretarial offices. This method was met with resistance from faculty and students, who found it inconvenient and unsafe given the risk of infection and the limited availability of CDs and CD players. Due to resource constraints, the university did not hire ICT experts to provide technical support or purchase expensive infrastructure. Despite being financially supported by the national government, the university did not receive additional funding for these expenses.

Faculty members were subsequently given the freedom to devise their own methods of distance education, which posed challenges for those lacking experience in online teaching and technological tools. The suitability of the current French curriculum for digital delivery was also questioned. The use of Google Classroom was explored as a potential solution, with announcements being posted on the French department's Facebook page inviting students to join virtual meetings and classes. However, only a few students were able to participate, and many lacked the necessary personal email addresses to log in.

# 7. Digital Technologies Availability versus Student Proficiency

Access to personal computers, tablets, and Chromebooks was limited due to their high cost, and computer labs were not available on campus. Students were also unfamiliar with computer operating systems and word processing tools. Furthermore, internet connectivity was insufficient, rendering computer-based instruction unfeasible within the Libyan educational system. This made finding a free, easy-to-use online educational tool particularly challenging for faculty during the pandemic.

On the other hand, the ubiquity of smartphones among students presented a potential avenue for distance education. Students commonly used social media platforms such as Facebook, Instagram, Snapchat, YouTube, Netflix, Shahid, Viber, WhatsApp, and Watch iT to connect with others and access entertainment. Home Wi-Fi was widely used to access the internet for such purposes.

# 8. Telegram Messenger's Efficacy in Fulfilling Targeted Objectives

In the spring of 2020, the author chose to take a different approach to designing online courses, utilizing the Telegram messaging platform. As an educator, the author sought to enhance student engagement and development, recognizing that smartphones were the most practical solution. The platform needed to be free, and compatible with Android and iOS operating systems, which are the most commonly used in mobile technology. The objective was to provide a practical and functional means of facilitating task performance and homework completion for learners. Telegram was launched in August of 2013 and has since been developed with additional features and improved security capabilities, leading to widespread popularity, particularly in the years 2020-2021. It became the most downloaded cell phone app globally in January of 2021, with 1 billion downloads worldwide.

The author established private channels and discussion groups on Telegram for each subject, and students readily joined by downloading the Telegram app and sending a text message to receive a private channel link. Private discussions chat groups were linked to channels in order to maximize the learning process. Telegram offers a range of possibilities, such as sending multiple media files, voice notes, and video calls, enabling the author to communicate with each student individually, provide direct support, receive assignments, homework, and queries, distribute tasks and duties, and announce important dates and study schedules.

Pre-recorded video lecture content was created and uploaded to private links on YouTube. All pre-recorded lectures were posted on private channels, allowing students to asynchronously access online

course materials at their convenience. External resources were shared via classroom channels to encourage students to watch videos, images, and PowerPoint presentations, and read articles. Students were able to communicate and share thoughts and concepts about the lecture contents.

# 9. E-learning Course Model Designs

The present study describes the design of an e-learning course model focused on teaching French phonetics to first-semester students. The 12-week hybrid asynchronous course, titled "French Phonetics-I," aimed to help students overcome the main difficulties they encountered when learning to read in French by exploring the characteristics and specific sounds of the French spoken string. The course emphasized the importance of prosodic features, including rhythm, accentuation, intonation, linking, sequence, and syllabication, to enable learners to discriminate French sounds effectively. Moreover, the course introduced the spelling-phony relationship, gradually transitioning students from the orthographic alphabet to the International Phonetic Alphabet (IPA). The teaching materials comprised a variety of vocabulary and phrases useful in everyday situations, and students were expected to improve their pronunciation and achieve an intermediate level of proficiency. The primary objective of the course was to provide students with precise phonetic rules that enable them to develop clear and accurate French pronunciation. At the beginner level, learners gained fundamental knowledge of French articulatory, vocalic, consonantal, phonetic, and prosodic systems. The general course objectives included the correct pronunciation of French sounds, including vowels, consonants (oral or nasal), and the "yod," expressing prosodic features, applying rules of linking and sequencing, distinguishing between different accents in French, and identifying silent letters, including the aspirated "h" and the silent "e." Ultimately, the course aimed to help students develop appropriate oral comprehension.

The second course model design was an asynchronous course titled "French Phonetics- II," specifically intended for second-semester students of French as a foreign or second language. The course was a comprehensive study of the terminology used by phonetics and phonology in all branches of linguistics. The course content included a systematic study of the human sound-producing apparatus and the basic sound "voice," with a focus on correcting and improving pronunciation through an in-depth study of the vowel and consonantal systems from a phonetic and phonological standpoint. Additionally, the course explored the distinctive articulatory features that describe and classify each "phone" or "phoneme." Students were expected to master the symbols of the (API), which allowed for the production of only one sound for each spelling sign in French. Furthermore, the course highlighted the sociolinguistic variables (phonetic or phonological) of France and Canada, and at the end of each chapter, students were given related topic questions to encourage class discussion. Upon completion of the course, students should be able to:

- Define the basic principles of the two subfields of linguistics (phonetics and phonology).
- Describe in detail the articulatory features of consonants, vowels, and semi-consonants/semi-vowels in the context of phonetics or phonology.
- Identify the mechanism of human articulatory organs involved in producing the basic sound of natural languages.
- Discuss phonological phenomena such as assimilation, diphthongization, and correlation. Graphically transcribe words, sentences, or passages from French into the (IPA) and vice versa.
- Specify on sketches the vowels and consonants from the position of the organs during phonation.
- Explain a dialectal or sociological variant that can be observed in France and Canada.
- Analyze internal and external factors that can modify the timbre of a sound by losing or acquiring an articulatory trait.
- Compare a set of phonological rules of contemporary French with those of Arabic.

# 10. E-learning Course Procedures

In Spring semester 2020, the e-learning course procedures for first-semester students were implemented to accommodate the challenging transition from high school to university. To address the concerns related to the coronavirus outbreak, a hybrid model of inperson classes and online discussions was adopted, and screencasts were uploaded to the online discussion group to enhance flexibility. Students who adhered to the course policies and completed assignments on time achieved success in the hybrid course, while those who did not meet the requirements experienced a slackening in the course pace, resulting in lower grades or class failure. The use of Telegram was found to be an effective tool in delivering the teaching material, with students encouraged to post questions in the Discussion Chat Group and submit homework assignments by the required deadlines.

The ethical use of digital technology was emphasized throughout the course, and students were advised to access the Course Channel and Discussion Chat Group frequently to stay informed of new information and announcements. Participation in group discussions and timely submission of assignments were considered evidence of class attendance. Telegram was also found to be a suitable platform for teaching French, with external resources provided by experts in teaching the language online. The lack of investment in computer skills or online searches in open libraries was identified as a limitation of the course.

To assess students' learning outcomes, traditional paper-pencil exams were used due to the unavailability of reliable technology for remote assessments. Multiple-choice questions aligned with the learning objectives were developed and validated to reinforce concepts. Inperson exams were conducted while adhering to necessary precautionary measures such as wearing face masks, using alcoholbased hand sanitizer, and maintaining physical distancing. To support the students' safety and the completion of exams, the Dean of the Faculty of Languages requested donations from faculty and staff to provide masks, water, and hand sanitizer to the students.

# 11. Online Learning Resources to Support the Teaching of French as a Foreign Language

During the distance education courses, various online external resources were utilized in addition to course materials to meet the specific demands of each subject. For example, in an academic writing course, articles on writing strategies were consulted from the Google Scholar platform. In the context of teaching French phonetics, a number of online resources were relied upon, including:

- Podcast Français Facile: A website offering free educational resources for teaching or learning French as a foreign language. Created by Vincent Durrenberger in 2006, this platform provides access to dialogues, texts, and exercises in written and audio formats for learners of all levels to practice basic language skills such as pronunciation, phonetics, conjugation, grammar, written and oral comprehension, and vocabulary. Additionally, this platform provides resources for preparing for various French proficiency exams, such as DELF, DALF, DILF, and TCF.
- Parlons Français, C'est Facile: A free website launched in 2012 by the French Ministry of Foreign Affairs with the aim of promoting French language learning and authentic cultural experiences. This website is available in seven languages including Arabic, Chinese, English, French, German, and Portuguese.
- Learn French with Georges: An educational channel on YouTube created by an experienced French teacher named Georges in 2016. Georges presents a variety of French conversations and dialogues to teach the French language, and his live streaming videos are unique because he travels to different locations in France to offer viewers the opportunity to connect with him, learn vocabulary, and understand French culture in real-life situations.

- Parlez-vous-French: An online course platform launched in 2016, specializing in teaching French as a foreign language (FLE) and proposing courses to teach the essential elements of a new language, such as lexical words, phonological system, grammatical components, sentence structure, and writing system. The team of professional instructors on this platform offers courses to help French learners progress quickly in all four competencies: listening, speaking, reading, and writing. This project serves over half a million students worldwide.
- French School TV: A Facebook page linked to a YouTube channel offering enjoyable lessons with exercises to help master spoken French like a native speaker. Vincent, the administrator, and YouTuber, provides essential French expressions used in everyday life, expands knowledge about common mistakes foreigners make in spoken French, and guides students in passing DELF and DALF oral exams. This online lesson initiative began in 2019.

There are numerous online resources available on the internet that can be useful for both instructors and students who are interested in teaching and learning French. The websites that have been utilized are just a few examples, as there are many more available. In addition, these online resources have provided a valuable alternative for students who have been unable to use the acoustics lab due to various reasons, enabling them to practice pronunciation using their mobile devices.

# 12. Ciné-Club (DLEA)

Six months prior to the outbreak of the Coronavirus, an attempt was made to establish a film club for the purpose of screening French and Francophone movies/series to students. Several hindrances were encountered in pursuit of this goal, including inadequate technical equipment (i.e., screen, projector, speakers), frequent power cuts, the unavailability of a spacious room to accommodate all students, and difficulty scheduling a time suitable for all students. The COVID-19 pandemic provided an opportunity to establish an online private cinema club through Telegram under the Department of European and Asian Languages' supervision. The ciné-club (DLEA) offered one film every Thursday, which was available to watch over the entire semester. After viewing the films individually, students joined a chat group to engage in discussions regarding the movie. The author believed that this approach enabled students to become more acquainted with contemporary French and Francophone cultures. Using movies as a learning tool provided the opportunity for students to listen to spoken language and observe facial expressions and gestures. Such direct observation of the natural language used by native speakers in a real-life setting aided in learners' comprehension and facilitated the absorption of French and Francophone cultures.

# 13. Is Asynchronous Learning the Best Choice for Libyan Higher Education?

According to the specific circumstances of Libva, there is a need to determine whether asynchronous learning is the optimal choice for higher education. Asynchronous video lessons, such as Massive Open Online Courses (MOOCs), have existed for an extended period, including Great Courses, YouTube lectures, and podcasts. The transition from traditional face-to-face education to digital education with information and communication technologies (ICTs) presented a double challenge due to the slow internet connection speed, inadequate ICT infrastructure, and cybersecurity issues, as well as frequent and prolonged power outages in various cities and areas. During the initial phase of the pandemic, many instructors around the world used real-time video and audio communication to educate higher-education students. This synchronous learning format provided an opportunity for students to engage in social interactions and discussions with their peers and instructors in real-time, obtain immediate answers, feedback, and guidance from instructors. However, synchronous learning did not function effectively in Libya, primarily due to the challenges mentioned above. Consequently, asynchronous learning was deemed the most suitable option for Libyan higher education. With asynchronous lessons, students could complete their learning, activities, discussions, and assignments at

different times when the power was on, and their devices were connected to high-speed internet. Furthermore, asynchronous learning typically provides a flexible pathway for personalized learning, enabling students to attend all classes, learn at their own pace, optimize meaningful learning experiences, review lectures as needed to improve comprehension and retention, and use extra time to complete tasks.

Sophie Queuniet, a Senior Lecturer from Columbia University, shared her experiences with teaching online during the Covid-19 pandemic. Specializing in teaching French as a foreign language, Dr. Queuniet utilized a 100% online synchronous approach, which she recommended for its ability to provide immediate feedback and maintain learning momentum. Despite its advantages, Dr. Queuniet acknowledged the disadvantages of synchronous learning due to issues such as poor internet connection, time-zone differences, sharing devices with other family members, and personal or medical reasons. While Dr. Queuniet did not personally prefer asynchronous learning, she recognized that adult students may prefer this approach to learning at their own pace and schedule.

To promote a sense of community in a synchronous learning environment, Dr. Queuniet shared tips such as using breakout rooms, providing time for students to speak alone without the instructor, encouraging students to use each other's first names, and allowing one student to report main points, questions, or problems from the whole class. Additionally, she recommended utilizing technology tools such as Pear Deck, Quizizz, and Kahoot, and being openminded towards new tools to help with motivation and interaction.

Dr. Queuniet also provided suggestions for setting the stage for successful interactions via Zoom, such as muting participants when not speaking for better sound quality, using the speaker's view, and using screen-sharing functions to display presentations or writing. Annotating or using the whiteboard function could also aid in teaching, such as showing a map of France and asking students to place various cities. To organize online lessons, Dr. Queuniet emphasized the importance of deciding beforehand on the necessary documents and posting them on the course repository (Canvas) and communicating with students through email.

# 14. Future of HyFlex Course Design

According to experts, higher education institutions should not replace traditional education with online education entirely. Instead, universities are gradually transitioning towards adopting a HyFlex course design model, which incorporates both synchronous (live sessions) and asynchronous (recorded sessions) types of online instruction. The HyFlex model offers students the flexibility to attend classes in-person or online according to their preferences, and they can switch modes of attendance weekly or by topic. This model ensures that all students achieve the desired learning objectives, irrespective of their chosen mode of attendance. The course materials are made available online to enable easy access by students, regardless of their mode of attendance.

# 15. Equitable Access to Digital Learning

According to Hall (2021), online education in developing countries is impeded by challenges such as slow internet connectivity, inadequate technological infrastructure, and network security issues. To address the need for equitable education opportunities in developing countries during the pandemic, various distance learning programs have been established. These include the Broadband Commission for Sustainable Development, which supports distance learning programs in developing nations, the open-source learning platform Moodle, Trees of Knowledge, which provides repositories of educational content in rural areas of Africa, edX, a nonprofit organization that seeks to increase access to post-secondary education globally, and Rumie, which, along with its development partners, creates and hosts 10-minute micro-learning courses called Bytes. These programs could be beneficial to higher education institutions in Libya, aiding in the acceleration of digital transformation in teaching and learning methods while promoting

equitable access to digital learning.

# 16. The 2030 Agenda and the 17 Sustainable Development Goals (SDGs)

In September 2015, all 193 member countries of the United Nations pledged to work together to support prosperity in all aspects of human life by signing the 17 Sustainable Development Goals (SDGs), which are part of the 2030 Agenda for Sustainable Development. The aim of this global 15-year plan is to ensure that all human beings can fulfill their potential in dignity, equality, and a healthy environment. To support the achievement of the SDGs, the Sustainable Development Solutions Network (SDSN) released a report in September 2020 that provides practical guidelines for higher education institutions. The SDSN guide emphasizes the critical and unique role of universities in delivering positive societal change, particularly through the development of "SDG implementers" through Education for the SDGs (or ESDGs). This approach involves providing students and other learners with the knowledge, skills, and mindsets to address the SDGs in their current or future roles. According to the report, digitization and digital transformation are essential to achieving the SDGs in academia and for creating a welleducated workforce. The report states that digital transformation offers the capacity for flexible education from anywhere and at any time. The report further notes that "innovations in academic programs for next-generation practices include enhancing community-based learning experiences, using innovative audience interaction technologies, and the agile shift to virtual teaching during the COVID-19 pandemic" (SDSN, 2020, p.52).

In a conference held on February 21, 2021, organized by the World Association for Sustainable Development (WASD) in collaboration with the Middle Eastern Knowledge Economy Institute (MEKEI), prominent keynote speakers analyzed the impact of the Covid-19 pandemic on the future of higher education (HE) in the Middle East and North Africa (MENA) region in achieving the United Nations (UN) Agenda 2030 and 17 Sustainable Development Goals (SDGs). The conference aimed to explore the role of academic and research institutions in facilitating the alignment of countries in the MENA region with the development of the global digital economy.

In his panel discussion, Dr. Mohamed Masaud, the Director of the Total Quality Directorate at the Ministry of Education in Libya, discussed the strategies and role of Libyan higher education institutions in achieving Sustainable Development Goal (SDG) No. 4 of the 2030 Agenda. This goal aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by the year 2030, with sub-items 4.3 and 4.5 advocating for gender equality and disability inclusion in higher education. Sub-item 4.b specifically addresses technological development, with the aim of substantially expanding the number of scholarships available to developing countries for enrollment in higher education and related programs.

Dr. Masaud identified several key challenges faced by Libyan higher education institutions in implementing effective online and distance education, including a lack of digital infrastructure and technical support, limited financial assistance for students without internet access, insufficient formative assessment strategies, and inadequate mechanisms for monitoring instructor performance. Additionally, power cuts have continued to occur frequently over the past decade. Despite these challenges, Dr. Masaud recommended several solutions for implementing effective distance education, including the rapid bridging of the digital divide through the establishment of internet access and Wi-Fi networks in universities, training instructors in effective technology use, setting up virtual classroom norms and expectations, promoting ethical standards for a safe academic environment, using appropriate educational technology tools for informative assessments, and expanding e-learning and interactive study materials through learning management system platforms.

# 17. The Global Coronavirus Pandemic: A Reminder to Address

# **Digital Vulnerabilities in Online Learning**

According to Dhawam (2020), Lancaster and Arango (2021), and Sims and Baker (2021), pandemics, wars, conflicts, and natural disasters have historically had a devastating effect on education and have set back progress in the affected areas for decades. These researchers posit that distance learning is a crucial step in overcoming such obstacles and guaranteeing equitable educational opportunities to students globally.

Zarei and Mohammadi (2021) have noted that developing countries faced greater challenges in the aftermath of the outbreak. Nevertheless, despite the difficulties, educational systems made some headway, with rapid improvement in ICT infrastructure and increased familiarity with online learning. Additionally, the COVID-19 pandemic served as an impetus for faculty members and students at the Faculty of Languages to enhance their technological competencies in teaching and learning foreign languages.

During the pandemic, the use of humble telecommunication technology proved instrumental, and faculty members exhibited an unwavering commitment to delivering scientific content to students. In response to the crisis, the Faculty of Languages established a computer lab on campus, outfitted with scanners and printers, although it currently lacks wired or wireless internet service. Nevertheless, this was a crucial first step toward enabling remote and hybrid teaching and learning. The Faculty of Languages has also initiated training workshops targeting both instructors and students, aimed at fostering digital literacy skills.

# 18. Looking Ahead

Agbelusi (n.d.) posits that "diamonds are created under pressure," and thus, Libyan higher education institutions must be resilient and persevere through challenging circumstances, as the time to shine will come. To prepare for potential emergencies and crises, it is necessary to establish a comprehensive digital platform by either purchasing or creating a learning management system (LMS) for distance education. In situations where it is not feasible to implement all proposed solutions to enhance learning and student engagement in remote courses, free applications, tools, and platforms can serve as temporary substitutes. As many students may only have access to cellphones, utilizing mobile-friendly tools and offline online applications, such as dictionaries, can optimize distance education.

To ensure faculty members are equipped to successfully teach in various modalities, such as face-to-face, offline, and online, it is paramount to provide training. Failure to do so may result in learning loss for an entire generation of students due to potential university closures or delays. Hence, it is essential to support a seamless transition from traditional classrooms to remote learning when required.

When expatriate instructors stopped cooperating, students lost the opportunity to learn French pronunciation from native French or Francophone speakers. However, distance education provides access to unlimited free French language lessons on the internet, enabling students to learn the language's correct pronunciation from native speakers. Additionally, the internet facilitates connection with global French language experts. Thanks to technological advancements, Libyan universities are no longer obliged to spend excessive amounts of money on external educational trips or inviting foreign instructors, as access to the real French world is only a click away.

Given the actual adverse conditions at the University of Benghazi, such as an inadequate number of classrooms, fuel shortages, frequent power outages, and traffic congestion, online education may serve as an ideal solution to ensure the continuity of learning in times of crises. Therefore, it is crucial to be prepared to shift quickly to remote learning to prevent interruptions in students' education in case of man-made, health-related, or natural crises.

Incorporating the Sustainable Development Goals (SDGs) into the institution provides a unique opportunity for both students and

JOHS Vol.22 No. 4 2023 136

faculty members to actively implement a vision that improves the university and enhances students' skills and engagement. Additionally, accommodations must be made to support students with disabilities. An examination of the impact of new technologies on language instruction reveals a powerful tool that can facilitate learners' comprehension of language components. Educational institutions must adapt to the characteristics of millennials, who predominantly learn through visual, auditory, or kinesthetic means, to effectively meet the needs of this generation.

# 19. Conclusion

The COVID-19 pandemic has significantly impacted the global education system, particularly for developing countries such as Libya. The sudden shift to fully online teaching and learning has posed various challenges and opportunities for academic institutions, including the University of Benghazi. The transition was challenging but necessary adaptation that required substantial infrastructure and technical improvements to facilitate successful distance learning. This case study highlights the experiences of professional educators in implementing e-learning during the pandemic, with a particular focus on teaching the French language as a foreign language. The study further adds to the growing body of research on the impact of the pandemic on education, provides insights into the successes and obstacles encountered during the transition to online education and offers recommendations for improving distance learning and remote training for students and professors in Libya. As the world adapts to the ongoing effects of the pandemic, academic institutions must continue to evolve their curriculum to offer appropriate online courses, with adequate infrastructure and technical support.

### 20. References

- [1]- Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*, 2(1), 45-51. http://www.doi.org/10.33902/JPSP. 2020261309
- [2]- Aguilera-Hermida, A. P., Quiroga-Garza, A., Gómez-Mendoza, S., Villanueva, C. A. D. R., Alecchi, B. A. & Avci, D. (2021). Comparison of students' use and acceptance of emergency online learning due to COVID-19 in the USA, Mexico, Peru, and Turkey. *Education Information Technology*, 26, 6823–6845. https://doi.org/10.1007/s10639-021-10473-8
- [3]- Agbelusi, S. (n.d.). Quotes, "Remember diamonds are created under pressure so hold on, it will be your time to shine soon." *Goodreads*.
  - https://www.goodreads.com/author/quotes/15749866.Sope\_Ag belusi
- [4]- Ash, N. (2016). Army takes Benghazi University campus but not Huwari cement plant. *Libya Herald*. https://www.libyaherald.com/2016/04/army-takes-benghazi-uni-campus-but-not-huwari-cement-plant/
- [5]- Allen, E., & Seaman, J. (2010). Class Differences Online Education in the United States. Babson Survey Research Group. https://www.bayviewanalytics.com/reports/classdifferences.pdf
- [6]- Almendingen, K., Morseth, M. S., Gjølstad, E., Brevik, A., & Tørris, C. (2021) Student's experiences with online teaching following COVID-19 lockdown: A mixed methods explorative study. *PLOS ONE*, 16(8): e0250378. https://doi.org/10.1371/journal.pone.0250378
- [7]- Arnold, M. G., Vogel, A., & Ulber, M. (2021). Digitalizing higher education in light of sustainability and rebound effects—surveys in times of the COVID-19 pandemic. *Sustainability*, *13*(22), 12912. https://doi.org/10.3390/su132212912
- [8]- Asynchronous learning explained: Examples, benefits, and more. (2021, February 22). *Panopto*. https://www.panopto.com/blog/asynchronous-learning-explained-examples-benefits-and-more/
- [9]- Austin, M. R., Fogler, K. A. J., & Daniel, D. B. (2021). Seeing self and others on-screen does not negatively impact learning in virtual classrooms. *Scholarship of Teaching and Learning in*

- *Psychology*. Advance online publication. http://dx.doi.org/10.1037/stl0000303
- [10]- Bervell, B., & Umar, I. N. (2020). Blended learning or face-to-face? Does tutor anxiety prevent the adoption of learning management systems for distance education in Ghana? *Open Learning, The Journal of Open, Distance and e-Learning*, 35(2), 159-177. https://doi.org/10.1080/02680513.2018.1548964
- [11]- Bookser, B. A., Ruiz, M., Olu-Odumosu, A., Kim, M., Jarvis, S. N., & Okonofua, J. A. (2021). Context matters for preschool discipline: Effects of distance learning and pandemic fears. School Psychology, 36(5), 325-334. http://dx.doi.org/10.1037/spq0000452
- [12]- Bredan, A., & Bakoush, O. (2021). COVID-19 epidemic in Libya. *The Libyan Journal of Medicine*, *16*(1), 1871798. https://doi.org/10.1080/19932820.2021.1871798
- [13]- Centers for Disease Control and Prevention. (2020, April 5). Coronavirus disease 2019 (COVID-19) 2020 interim case definition. https://wwwn.cdc.gov/nndss/conditions/coronavirus-disease-2019-covid-19/case -definition/2020/
- [14]- Johns Hopkins Center for Systems Science and Engineering. (2023). An interactive web-based dashboard to track COVID-19 in real time. https://coronavirus.jhu.edu/map.html
- [15]- Crawford, A., Varghese, C., Hsu, H.-Y., Zucker, T., Landry, S., Assel, M., Monsegue-Bailey, P., & Bhavsar, V. (2021). A comparative analysis of instructional coaching approaches: Face-to-face versus remote coaching in preschool classrooms. *Journal of Educational Psychology*, 113(8), 1609– 1627. https://doi.org/10.1037/edu0000691
- [16]- Dayagbil, F. T., Palompon, D. R., Garcia, L. L., & Olvido, M. M. J. (2021). Teaching and learning continuity amid and beyond the pandemic. *Front. Educ.* 6:678692. doi: 10.3389/feduc.2021.678692
- [17]- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology*, 49(1), 5-2 https://doi.org/10.1177/0047239520934018
- [18]- Di Natale, A. F., Repetto, C., Riva, G., & Villani, D. (2020). Immersive virtual reality in K-12 and higher education: A 10-year systematic review of empirical research. *British Journal of Educational Technology*, 51(6), 2006-2033. doi:10.1111/bjet.13030
- [19]- Distance education definitions. (n.d.). SUNY Morrisville. https://www.morrisville.edu/contact/offices/provost-office/distance-education/distance-education-definitions
- [20]- Durvo's channel. (2021). Telegram. https://t.me/durov/152
- [21]- Education: From disruption to recovery. (2022). UNESCO. https://en.unesco.org/covid19/educationresponse
- [22]- Einhorn, E. (2020, March 17). As coronavirus closes schools, teachers and families brace for massive experiment in online education. NBC News. https://www.nbcnews.com/news/education/coronavirus-closes-schools-teachers-families-brace-massive-experiment-online-education-n1160966
- [23]- Entrup, W. G., & Holst, A. (n. d.). How companies can improve their impact on the sustainable development goals (SDGs) and harness the power of digitalization: A practical handbook for managers.

  Econsense. https://econsense.de/app/uploads/2018/06/econsense\_Companies-for-Change\_Handbook\_2017\_3MB.pdf
- [24]- Ferrari, A. (2020). A brief history of distance learning. Retrieved from https://www.raccoongang.com/blog/elearning-history/.
- [25]- Florida National University. (2019). The Evolution of Distance Learning. https://www.fnu.edu/evolution-distance-learning/
- [26]- Friedman, J. & Moody, J. (2020). How Online Classes Work: 10 Frequently Asked Questions. U.S. NEWS. https://www.usnews.com/higher-education/online-education/articles/2018-01-16/how-do-online-classes-work-10-frequently-asked-questions
- [27]- FNU. (2019). The history of distance learning: A timeline. Florida National University. Retrieved from

- https://www.fnu.edu/the-history-of-distance-learning-a-timeline/.
- [28]- Gao, G., & Sai, L. (2020). Towards a 'virtual' world: Social isolation and struggles during the COVID-19 pandemic as single women living alone. Gender, Work & Organization, 27(5), 754-762. https://doi.org/10.1111/gwao.12468
- [29]- Gaebel, M., Zhang, T., Stoeber, H. & Morrisroe, A. (2021). Digitally enhanced learning and teaching in European higher education institutions. European University Association absl.
- [30]- Gershman, J. (2020). A Guide to State Coronavirus Reopenings and Lockdowns. *The Wall Street Journal*. https://www.wsj.com/articles/a-state-by-state-guide-to-coronavirus-lockdowns-11584749351
- [31]- Global education coalition. (2020). *UNESCO*. https://en.unesco.org/covid19/educationresponse/globalcoalition
- [32]-Hall, K. (2021, January 15). 9 Successful distance learning programs in developing nations. *The Borgen Project*. https://borgenproject.org/distance-learning-programs/
- [33]- Han, S., Park, H. J., Nah, S., Lee, E. H., Lee, H. J., Park, J. O., & Lee, C. A. (2021). Instructor-led distance learning for training students in cardiopulmonary resuscitation: A randomized controlled study. *PLoS ONE 16*(5): e0251277. https://doi.org/10.1371/journal.pone.0251277
- [34]- Hawes, M. T., Szenczy, A. K., Klein, D. N., Hajcak, G., & Nelson, B. D. (2021). Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic. Psychological medicine, 1–9. Advance online publication. https://doi.org/10.1017/S0033291720005358
- [35]-Hill, P. (2020). Revised Outlook for Higher Ed's Online Response to COVID-19. *PhilonEdTech*. https://philonedtech.com/revised-outlook-for-higher-eds-online-response-to-covid-19/
- [36]- Holmes, W., Nguyen, Q., Zhang, J., Mavrikis, M., & Rienties, B. (2019). Learning analytics for learning design in online distance learning. *Distance Education*, 40(3), 309-329. https://doi.org/10.1080/01587919.2019.1637716
- [37]- How to use telegram messenger as an e-learning tool for teaching and learning. (2019, October 8). *The Scientific World*. https://www.scientificworldinfo.com/2019/10/how-to-use-telegram-messenger-as-an-e-learning-tool.html
- [38]-Indiana University. (2020). Definitions of Distance Education [Courses, Programs and Students] for SIS Coding and Compliance Review and Reporting Credit Hour Allocations. Office of Online Education and University Student Services and Systems. https://teachingonline.iu.edu/doc/iuonline-term-definitions.pdf
- [39]- Ison, R. L. (2001). Systems Practice at the United Kingdom's Open University. Springer Link. https://link.springer.com/chapter/10.1007/978-1-4615-1313-17
- [40]- Ison, D. (2001). The Open University in Britain: Innovations in lifelong learning. Journal of Education and Work, 14(1), 5-22. doi: 10.1080/13639080020028794
- [41]- Iwendi, G. C., Alsadig, A. M., Isa, M. A., Oladunni, A. A., Musa, M. B., Ahmadi, A., Adebici, Y. A., & Lucero-Prisno III, D. E. (2021). COVID-19 in a shattered health system: Case of Libya. *Journal of Glob Health*, 11:03058. doi: 10.7189/jogh.11.03058
- [42]- Kauppi, S., Muukkonen, H., Suorsa, T., & Takala, M. (2020). I still miss human contact, but this is more flexible— Paradoxes in virtual learning interaction and multidisciplinary collaboration. *British Journal of Educational Technology*, *51*(4), 1101-1116. doi:10.1111/bjet.12929
- [43]- Lancaster, M., & Arango, E. (2021). Health and emotional well-being of urban university students in the era of COVID-19. *Traumatology*, 27(1), 107-117. http://dx.doi.org/10.1037/trm0000308
- [44]- Li, C., & Lalani, F. (2020, April 29). The COVID-19 pandemic has changed education forever. This is how. *World Economic Forum*. https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

- [45]- Liu, R., Wang, L., Lie, J., Wang, Q., & Ren, Y. (2020). Effects of an immersive virtual reality-based classroom on students' learning performance in science lessons. *British Journal of Educational Technology*, 51(6), 2034-2049. doi:10.1111/bjet.13028
- [46]- Makori, A., & Lake, R. (2020, June). The digital divide among students during COVID-19: Who has access? Who doesn't? CRPE Reinventing Public Education. https://crpe.org/thedigital-divide-among-students-during-covid-19-who-hasaccess-who-doesnt/
- [47]- Masaud, M. (2021). Strategies and Role of Libyan Higher Education Institutions in Achieving Sustainable Development Goal No. 4 of the 2030 Agenda. Virtual panel discussion presented at the Annual Conference on Education, New York, NY.
- [48]- McCarthy, K. M. (2020). Empowering online undergraduate social work students to address their stress. *Journal of Baccalaureate Social Work*, 25(1), 231-24. https://doi.org/10.18084/1084-7219.25.1.231
- [49]- Muman, N. M., & El-Jeadi, F. B. (2021). Libyan Teachers' Challenges for Teaching English Online During the Covid-19 Pandemic. *Zliten, Al- Asmarya Islamic University*.
- [50]- Ou Yang, F.-C., Lo, F.-Y. R., Chen Hsieh, J., & Wu, W.-C. V. (2020). Facilitating communicative ability of EFL learners via high-immersion virtual reality. *Educational Technology & Society*, 23(1), 30–49. https://www.jstor.org/stable/26915405
- [51]- Parker, J. S., Haskins, N., Lee, A., Hailemeskel, R., & Adepoju, O. A. (2021). Black adolescents' perceptions of COVID-19: Challenges, coping, and connection to family, religious, and school support. *School Psychology*, 36(5), 303-312. http://dx.doi.org/10.1037/spq0000462
- [52]- Pereira, A. S., Gomes, R. M., Marques, D. R., & Walker, S. L. (2021). Psychometric properties of the European Portuguese version of the distance education learning environments survey (DELES). *Current Psychology*, 40, 367–378. https://doi.org/10.1007/s12144-018-9919-2
- [53]- Quenelle, B. (2019). Pavel Dourov, l'enfant terrible du Webrusse. Les Echos. https://www.lesechos.fr/2016/05/pavel-dourov-lenfant-terrible-du-web-russe-1111249
- [54]- Queuniet, S. (2021). Teaching French as a foreign language online. French Review, 94(2), 234-245. DOI: 10.1353/tfr.2021.0035
- [55]- Rad, F. A., Otaki, F., Baqain, Z., Zary, N., & Al-Halabi, M. (2021). Rapid transition to distance learning due to COVID-19: Perceptions of postgraduate dental learners and instructors. *PLOS ONE*, 16(2), e0246584. https://doi.org/10.1371/journal.pone.0246584
- [56]- Rayes, A. A., Annajar, B. B., Dayhum, A. S., & Eldaghayes, I. M. (2020). Why there were few cases of coronavirus disease 2019 in Libya during the first two months of the pandemic? *International Journal of One Health*, 6(2), 160-164. doi: www.doi.org/10.14202/IJOH.2020.160-164
- [57]- Sachs, J. D. (2020). Accelerating education for the SDGs in universities a guide for universities: A guide for universities, colleges, and tertiary and higher education institutions. New York: Sustainable Development Solutions Network. https://forumea.org/wp-content/uploads/2021/06/acceleratingeducation-for-the-sdgs-in-unis.pdf
- [58]- Schleicher, A. (2020). The impact of COVID-19 on education Insights from education at a glance 2020. *OECD*. https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf
- [59]- Schmidt, A., Kramer, A. C., Brose, A., Schmiedek, F., & Neubauer, A. B. (2021). Distance learning, parent–child interactions, and affective well-being of parents and children during the COVID-19 pandemic: A daily diary study. *Developmental Psychology*, 57(10), 1719-1734. http://dx.doi.org/10.1037/dev0001232
- [60]- Skar, G. B. U., Graham, S., & Huebner, A. (2021). Learning loss during the COVID-19 pandemic and the impact of emergency remote instruction on first grade students' writing: A natural

- experiment. *Journal of Educational Psychology*. Advance online publication. http://dx.doi.org/10.1037/edu0000701
- [61]- Soncini, A., Politi, E., & Matteucci, M. C. (2021). Teachers navigating distance learning during COVID-19 without feeling emotionally exhausted: The protective role of self-efficacy. *School Psychology*, 36(6), 494-503. http://dx.doi.org/10.1037/spq0000469
- [62]- SUNY Morrisville. (n.d.). Distance Education Definitions. SUNY Morrisville Distance Education Policy and SUNY Online. https://www.morrisville.edu/contact/offices/provost-office/distance-education/distance-education-definitions
- [63]- Taha, R. (2016, October 23). In pictures: Libyan students celebrate graduation amid ruins. *BBC News*. https://www.bbc.com/news/world-middle-east-37716396
- [64]- Telegram (software). (n.d.). WIKIPEDIA: The Free Encyclopedia. https://en.wikipedia.org/wiki/Telegram\_(software)
- [65]- The evolution of distance education in 2020. (2020, September 17). KU The University of Kansas. https://educationonline.ku.edu/community/distance-education-evolution-in-2020
- [66]- Trezise, B. (2021, December 5). Trezise: Pandemic challenges aside, greater Lansing has much to celebrate. Lansing State Journal. https://www.lansingstatejournal.com/story/opinion/2021/12/05 /trezise-pandemic-challenges-aside-greater-lansing-has-muchcelebrate/8629020002/
- [67]- United Nations Development Programme. (2020). Human Development Report 2020 The Next Frontier: Human Development and the Anthropocene. https://hdr.undp.org/sites/default/files/hdr2020.pdf
- [68]- United Nations. (n.d.). Transforming our world: the 2030 Agenda for Sustainable Development. Department of Economic and Social Affairs Sustainable Development. https://sdgs.un.org/2030agenda
- [69]- University of Benghazi. (n.d.) https://uob.edu.ly/
- [70]- Volpe, A. M. & Crosier, D. (2020, April 25). Focus on: What has the covid-19 crisis taught us about online teaching? *Eurydice*. https://eacea.ec.europa.eu/national-policies/eurydice/content/focus-what-has-covid-19-crisis-taught-us-about-online-teaching\_en
- [71]- WASD. (2021). Higher Education and its challenges in MENA region: some key strategies to achieve SDG's. https://wasd.org.uk/conferences/mena-higher-education/program/
- [72]-Worley, C. B., LoSavio, S. T., Aajmain, S., Rosen, C., Stirman, S. W., & Sloan, D. M. (2020). Training during a pandemic: Successes, challenges, and practical guidance from a virtual facilitated learning collaborative training program for written exposure therapy. *Journal of traumatic stress*, 33(5), 634–642. https://doi.org/10.1002/jts.22589
- [73]-World Health Organization. (2020). "Press conferences on COVID-19." https://www.who.int/emergencies/diseases/novel-coronavirus-2019
- [74]- Zarei, S., Mohammadi, S. (2020). Challenges of higher education related to e-learning in developing countries during COVID-19 spread: A review of the perspectives of students, instructors, policymakers, and ICT experts. *Environmental Science and Pollution Research*. https://doi.org/10.1007/s11356-021-14647-2