Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4, 1565-1576
2024
Publisher: Learning Gate
DOI: 10.55214/25768484.v8i4.1528

Inclusive education: Bridging the gap between online and face-to-face teaching modalities

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Abstract: In the post-COVID-19 era, higher education institutions worldwide are increasingly adopting a blend of online and face-to-face teaching. The pandemic-induced shift to remote learning has prompted concerns about the inclusivity of online education compared to traditional classroom settings. This study aimed to evaluate the principles of inclusive education across both modalities, drawing on the experiences of (85) students from Birzeit University during the second semester of the 2022-2023 academic year. Three courses were examined: Scientific Research Methodology, Applied Action Research in Inclusive Education and Special Education, and Advanced English Language. Following a qualitative approach and descriptive analysis, the study collected data through students' reflective journals, in which they described their experiences with both teaching modes. The analysis was guided by UNESCO's 2017 inclusive education framework categorized into four domains: diversity and alignment in teaching methods, active participation and interaction, accessibility of educational materials and equity and justice. Findings indicated that although students generally perceived face-to-face teaching as more inclusive, there are potential benefits of a blended approach were also acknowledged, suggesting that combining online and face-to-face methods could enhance inclusivity. The study recommended a blended teaching approach to improve accessibility and flexibility, providing options that accommodate students' diverse needs, preferences and impairments. Additionally, it emphasized the importance of equitable access to technology and the internet to overcome barriers in hybrid learning, ensuring that no student is left behind.

Keywords: *Higher education, Inclusive education, Online learning.*

1. Introduction

Inclusive education has been described as a foundational pillar of modern educational systems striving to ensure equitable opportunities for all learners while considering their diverse needs [1]. Inclusivity in education can be established on the principles of equity, diversity, and differentiation, creating learning environments, that promote cultural understanding, reduce prejudice, enhance teamwork, and support the potential of every learner to navigate global challenges and changes [1-2-3] Inclusive education can also adopt a student-centric approach, offering teaching strategies and techniques that cater to each learner's diverse needs and abilities, promoting their sense of belonging, active participation, and academic and social excellence [4-5].

Embracing inclusive educational practices in higher education has become a global objective for all institutions, aiming to enhance the engagement of learners irrespective of their backgrounds, physical impairments, learning disabilities, or other mental, physical and socio-economic conditions [4-5-6]. It also attends to marginalized students by amplifying their voices and recognizing their uniqueness by implementing respectful measures that can prove to them they are valued. This can be achieved by

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ensuring equal opportunities for all students, assisting each one in realizing their goals and career aspirations based on their capabilities while considering their physical, social, mental and cognitive diversity [3].

In higher education, colleges and universities worldwide have been devoted to working on developing their graduates' academic and soft skills. This effort has led to the revision of curricula and the integration of skills and pedagogies designed to strengthen graduates' employability based on the evolving demands of the labor market. Simultaneously, these efforts aimed to nurture the potential of each student [7- 8]. Inclusivity in higher education encompasses vital elements within teaching and learning practices, including teaching methods, assessments, curriculum design, and learning resources [9-10], such as accessibility, affordability, diversity as well as flexibility and resilience.

Accessibility, for instance, is a fundamental principle within inclusive education, guaranteeing that all educational resources, technologies, and facilities are within the reach of students with disabilities or distinct learning needs [11]. This may encompass offering alternative formats for course materials, adding captions to videos, utilizing assistive technologies, and planning campuses with a universal entry [12-13]. This may urge for developing curricula that meet diverse viewpoints, cultures and life demands. Therefore, students may feel acknowledged and involved in their educational journey. Inclusive pedagogical approaches also involve adapting teaching techniques to suit various learning styles and preferences. Educators can engage students in active learning methods, collaborative tasks and self-reflection to encourage a more comprehensive and cooperative learning atmosphere [14].

Furthermore, the aspect of affordability has a pivotal role in facilitating the inclusion of learners into higher education, by tackling financial obstacles through the provision of scholarships, grants, and transparent details about financial aid alternatives [12-13]. In respect of evaluation, the utilization of a diverse range of alternative assessment approaches can enhance fairness and promote inclusivity by honoring individual differences and presenting diverse options that encourage adaptability. This, in turn, has the potential to refine higher education assessment tools [15-16]. Thus, the concept of inclusive and equitable evaluation should embrace a comprehensive outlook to ensure just and unbiased outcomes. This perspective suggested addressing the diverse range of students with their strengths and capabilities when designing assessments of and for learning [17].

The landscape of higher education has undergone a significant transformation due to the emergence and wide-ranging adoption of online teaching methods. Technology has introduced numerous opportunities for e-Learning; thus offering enhanced flexibility and satisfying the diverse needs of learners [18-19]. During the COVID-19 pandemic, colleges and universities worldwide have suddenly transitioned to remote teaching and learning giving rise to various challenges and prospects [20]. Notably, certain obstacles related to social justice, such as accessibility challenges, were mitigated as students engaged in remote learning [16]; however, new concerns have arisen. While online teaching and learning introduced choices and adaptability, it raised concerns regarding equity and inclusivity in education.

Consequently, universities worldwide have tried to combine conventional in-person teaching with online learning, aspiring to develop a comprehensive educational environment. Among these institutions, Birzeit University (BZU), a Palestinian academic institution known for prioritizing diversity and inclusiveness in its educational approach, has also adopted the shift towards incorporating online learning into its conventional teaching methods. Nevertheless, the extent to which these approaches justly promote inclusivity is still uncertain leaving room for inquiry into their impact on the university's goals of fostering an inclusive educational atmosphere [21]. Therefore, the importance of this research endeavor sprang from its potential to offer evidence-based insights into the inclusiveness of both online and face-to-face teaching modalities at BZU. The outcomes of this study could be advantageous not only to BZU but also serve as guidance for other educational establishments worldwide that are striving to integrate online teaching approaches while upholding inclusivity principles. The results of this current investigation could also contribute to the global discourse on inclusive education by examining two instructional modes, ensuring no student has been left behind,

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
DOI: 10.55214/25768484.v8i4.1528

and establishing supportive learning environments within higher education institutions. Studying the impact of these teaching modalities on inclusive education has become crucial for steering educational institutions toward effective strategies that address the needs of diverse learners. Hence, the present study aimed at exploring and comparing the inclusivity of online and face-to-face teaching modalities within the context of Birzeit University identifying proper practices to guarantee an inclusive educational experience for every student.

1.1. Research Question

This study aimed to investigate students' experiences by answering the following question: To what extent do online and face-to-face teaching modes enhance inclusive education at Birzeit University based on BZU students' experiences?

2. Empirical Studies

Performance gaps in online courses varied across academic subject areas. For example, Chawinga and Zozie [23] studied the benefits, opportunities, and challenges facing online learning at Mzuzu University following a mixed approach. The theoretical paradigm focused on three domains: the structure of instructional programs, the interaction between learners and teachers, and promoting learner's self-directedness. The outcomes of this study showed that poor infrastructure, such as electricity and internet, was the main challenge facing Malawi society, so this restricted the efficiency of using blended education. It was also concluded that the interaction between teachers and students was ineffective, and students complained about the delay in feedback and end-of-semester results. Additionally, the communication tools used by lecturers were less effective.

In respect of teaching successful online courses in higher education, Kebritchi et al. [24] synthesized the results of empirical studies in this regard. The results were indemnified and pertinent to online learners, educators and content development. Learners' difficulties in this mode were related to their readiness, identity and participatory role as well as to their expectations. The instructors' challenges involved a change in their role and obstacles in time management and teaching styles. Other issues were presented regarding an adaption that should be performed in the learning resources and content delivery. It was concluded that educators and instructors in higher education should be trained and professionally prepared to cope effectively with the challenges in online education. Likewise, Ponomareva and Ugnich [25] investigated the limitations and opportunities and application of online teaching mode in the light of inclusive education at higher educational institutions in Russia. It was concluded that the possibility of applying online education in inclusive higher education cannot be achieved without blending this mode with the conventional one (face-to-face).

During the Covid-19 pandemic, Parmigiani, et al. [26] studied the E-inclusion in online education in Italy during the outbreak of the pandemic. The results revealed that students' accessibility to quality education was hindered due to some issues, including economic background, computer illiteracy, electric power supply and internet connectivity. Similarly, Aristovnik et al. [27] examined the influence of technological knowledge and skills on students' learning abilities during the Covid-19 pandemic. It was summarized that poor knowledge of technological tools either from the lecturers or students negatively impacts students' attitudes, especially undergraduates and those who are in less developed areas.

Vladova et al. [28] investigated how students' attitudes towards online learning had changed over time regarding the advantages and disadvantages of online teaching mode. This was performed according to the level of appropriateness of the subject, the familiarity of the learner with the technological instruments and the content converted as digital resources. Technology acceptance was measured by a model regarding specific indicators for student acceptance, including perceived usefulness, ease of use and enjoyment. Future aspects of online learning over the different disciplines were presented. Inclusive education in the Australian context was investigated by Page et al. [29] during the Covid-19 pandemic. Based on the results, different challenges were presented regarding

Edelweiss Applied Science and Technology
ISSN: 2576-8484
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achieving inclusion in e-learning, such as the accessibility to the learning tools and materials which was referred to electric power supply and internet connectivity issues.

Upon the analytical review of the previous studies in light of the main objective of the current study, it can be concluded, based on the researchers' review, that although numerous studies and research conducted on comparing the online and face-to-face teaching modes, scarce research efforts held this comparison concerning the inclusive education aspects and principles. Few studies also examined the inclusivity in the two modes of teaching (online and face-to-face), yet the inclusion was studied based on one or two indicators, such as accessibility and availability. In other words, this study might be one of the initial studies that compared the inclusivity between face-to-face and online education based on students' perspectives and in light of the guidelines outlined in the UNESCO report of 2017, particularly (a) Diversity and Alignment in Teaching Methods, (b) Active Participation and Social Interaction, (c) Accessibility of Learning Materials, (d) Equity and Justice.

3. Methodology

The current study aimed to compare the achievement of inclusive education between e-learning and face-to-face teaching modes based on the perspectives of BZU students. The researchers followed a descriptive-qualitative approach to understand students' perceptions regarding the inclusivity of these two teaching modalities within their experience during the second semester of the academic year 2022/2023.

3.1. Design, Context and Participant

The participants in this study were eighty-five (85) students from three different faculties and enrolled in three courses: *Scientific Research Methodology* in the Faculty of Economics and Business; *Applied Action Research in Inclusive Education* and *Special Education* in the Faculty of Education; *Advanced English Language* course in the Faculty of Arts. It is worth noting that the *Applied Action Research in Inclusive Education* and *Special Education* course is a specialization requirement for undergraduate students in the Faculty of Education, whereas the *Scientific Research Methodology* course is a compulsory requirement for the students in the Business and Economics Faculty. Additionally, the *Advanced English Language* course is a prerequisite for all university students. The participants' division per course is presented in Table 1.

Table1.
Participants' division per course.

Course	No. of students
Scientific research methodology	30
Applied action research in inclusive and special education	30
Advanced English language	25

As displayed above, 85 BZU students were involved in this study, who belonged to three courses: Scientific Research Methodology; Action Research in Inclusive Education and Special Education; and Advanced English Language.

3.2. Data Collection

Data collection occurred after integrating online learning with the face-to-face teaching mode in three distinct courses. Firstly, at the outset of the second semester of the academic year 2022-2023, three courses at BZU were randomly selected to participate in this investigation. These courses were: *Scientific Research Methodology*; *Action Research in Inclusive Education and Special Education*; *Advanced English Language*. Secondly, throughout the semester, the researchers introduced diverse online learning materials, teaching practices and assessment tools in conjunction with the conventional strategies along with the face-to-face teaching mode within these courses. The e-learning activities and evaluations for

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
DOI: 10.55214/25768484.v8i4.1528

each course were organized on the Moodle platform following systematic and organized criteria that addressed indicators of inclusion in education. These criteria comprised provisions for choices, embraced resilience, and ensured accessibility and justice in addition to other aspects. At the end of the semester, participating students were invited to compose reflective journals regarding their perspectives on the achievement of inclusive education through the two modes of teaching they had experienced in their courses. Students' responses were subjected to qualitative analysis in alignment with the research question.

3.3. Online and Face-to-Face Teaching Practices

In the three courses involved in the current study, students experienced two modes of teaching (online and face-to-face), as follows:

- **Learning Materials and resources**: Course outlines, learning materials and open resources were provided to students online (via Moodle and Ritaj) and face-to-face (as printed-out documents). For instance, students were provided with links, videos, and articles via Moodle, in addition to supplying them with hard copies of outlines, books and so forth.
- **Delivery of Teaching**: Instructors divided the teaching-learning content to be delivered online through synchronous Zoom sessions and conventionally in classrooms. Some online activities were also sorted for students via the Moodle platform parallel with face-to-face activities, such as forums.
- **Assessment and Evaluation**: In each course, students conducted online and face-to-face quizzes and assignments. For example, they submitted recorded presentations as assignments via Moodle while delivering face-to-face presentations.

3.4. Instruments

The data obtained in the current study were collected qualitatively by analyzing students' final reflective journals. Participants were instructed to reflect upon their experiences in the two teaching modalities at the end of the semester, which is a strategy that can demonstrate learners' social and intellectual growth that occurred over time [30]. The prompts and questions suggested by the researchers were utilized to guide this reflective process. Carefully formulated open-ended questions [31] were posed prompting students to provide insights on various key aspects of inclusion in both online and face-to-face teaching modes, such as diversity in teaching practices and methods, accessibility and availability of learning resources, active participation, student-teacher relationships, including interaction, knowledge level, cognitive growth as well as equity and justice considerations

3.4.1. Instrument Trustworthiness

As previously stated, students' final reflective journals were analyzed to facilitate a comparison between the two modes of teaching in the context of the three courses regarding the inclusivity of the two modes based on students' perspectives. The validity of the collected data was ensured through the creation of meticulously structured prompts for reflective journals designed to elicit specific responses from students about indicators of inclusive learning, such as diversity in teaching practices and methods, accessibility, availability of resources and active participation. These prompts experienced review by experts in the field. Furthermore, the reliability of the gathered data was established by using both inter-coding and intra-coding techniques. In terms of inter-rater reliability, two researchers contributed to producing trustworthy outcomes. Intra-rater reliability was implemented by asking each researcher to independently analyze the data more than once [31-32].

3.5. Data Analysis

The students' responses were examined to compare the achievement of inclusive education based on their experiences within these three courses. The qualitatively obtained data underwent content analysis utilizing latent analysis as outlined by Krippendorff [32]. This process occurred after establishing the

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
DOI: 10.55214/25768484.v8i4.1528

predetermined criteria, which were formulated based on the indicators of inclusive education. The data were systematically categorized and grouped into themes through a thematic analysis approach to address the research question concerning the comparison between online and face-to-face teaching modes concerning their inclusivity. It is worth noting that the conceptual framework of inclusion adhered to in this study was aligned with the guidelines outlined in the UNESCO report [33]. Examples of the pre-determined themes and indicators of inclusive education used in the analysis are organized in Table 2.

Table 2.
Domains and indicators of inclusive education used in the analysis.

Domains of inclusive education	Examples of indicators
(a) Diversity and alignment in teaching methods	• Addressing student needs, differences, and learning styles. • Using various teaching methods, strategies. • Providing choices and options, • Promoting thinking and creativity ..etc.
(b) Active participation and interaction	• Having enjoyable classes • Being engaged and motivated • Involved in discussions, collaborative work, group work and projects...etc.
(c) Accessibility of education and learning materials	• Encountering no economic, physical, political, cognitive and social barriers and limitation • The availability of learning resources and materials. etc.
(d) Equity and justice	• Being treated equally with respect, • Encountering resilience and flexibility, • Comfortability • Experiencing fair and diverse assessments/ Evaluations…. etc.

4. Results and Discussion

Through thematic analysis, the findings were organized into overarching domains, which encompassed: (a) Diversity and alignment in teaching methods, (b) Active participation and interaction, (c) Accessibility of education and learning materials, and (d) Equity and justice. These core themes comprised sub-categories derived from the core tenets of inclusive education principles.

4.1. Diversity and Alignment in Teaching Methods between Face-to-face and Online Education.

This section presented a summary of students' perspectives, focusing on the diversity of teaching practices and methods and their alignment with 21st-century demands.

Based on the results, it was demonstrated that the majority of students perceived face-to-face teaching as a mode that can establish a more diverse teaching context due to the fertile interactive communication between students and instructors. They also expressed the view that face-to-face teaching can offer a range of teaching methods of higher quality. According to the students, it was also revealed that face-to-face teaching can provide better opportunities for social interaction, networking and communication since it occurs within a campus setting daily: "*In conventional (face-to-face) education, teaching practices and methods are various and practical, allowing for easier education and communication between the teacher and us*". Furthermore, the results demonstrated that face-to-face teaching mode can enhance the teaching process and communication between students and instructors, fostering increased interaction and networking that contributes to a more comprehensive and enjoyable learning experience.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
DOI: 10.55214/25768484.v8i4.1528

On the other hand, most participating students held different opinions regarding online education. Some students felt that the online teaching mode is limited regarding diversity in teaching practices and resources: *"Diversity in teaching methods used in online classes is limited, and it is challenging for the professor to use non-lecturing approaches".* In addition, they believed the readiness and infrastructure are inadequate, which can be major obstacles to achieving diversity and alignment. Others criticized online education for fostering dependency and isolation due to the reliance on electronic resources remotely.

Some students criticized the online teaching mode for being monotonous and one-dimensional. They also highlighted issues related to internet accessibility issues and lack of essential computer skills: "*I remember how terrible I felt when I was conducting an online quiz and then out of a sudden the internet was disconnected. I felt lost*". Students in the research methods course suggested that it should be taught face-to-face due to its applied and field-oriented requirements, which cannot be adequately addressed through online learning. Additional criticisms included that the instructional tools in online classes do not encourage teamwork, which is essential for interactive learning. However, few students acknowledged that online education can provide diversity in learning resources and information.

Regarding the alignment with 21st-century demands and promoting higher-order thinking and critical thinking, the results showed that some students viewed face-to-face teaching as a fundamental basis for acquiring knowledge and fostering intellectual discussions and dialogues: *"Face-to-face education also provides collective knowledge that serves cognitive and scientific research production more comprehensively and diversely"* This can be accomplished by strengthening a knowledge foundation that provides students diverse experiences, promotes critical analytical skills, and offers opportunities for practical, applied, and collaborative practices. Students also believed that the face-to-face teaching mode holds educational value and has a fundamental role in pedagogy, as it contributes to active communication among students to enhance their analytical, cognitive, and comprehension abilities: "*The skills in face-to-face education concentrated in comprehension and critical thinking, in contrast of the essential technical and digital skills for the e-learning to keep efficient use".*

Students' perceptions of the two teaching modalities can be attributed to multiple dimensions. At first sight, students believed that face-to-face education could offer better diversity in teaching methods and practices as they experienced in this mode of real interaction, various teaching methods and group activities. This outcome was displayed in previous studies [34- 35] that confirmed the presence of major barriers to online education during COVID-19 in terms of teaching, learning and assessment tools, especially for students who suffered learning difficulties and impairment. Additionally, the multidimensional diversity in face-to-face education including discussions, dialogues and using various teaching methods was not at the same intensity in the online activities as students as well as instructors may lack the technological skills [24]. Integrating diverse methods of teaching pedagogically in online learning may require multiple educational and technological skills known as Technological Pedagogical Content Knowledge (TPCK) which can, according to Santos and Castro [36], enhance educators' skills for a smooth integration of online learning.

Although the instructors tried to vary in techniques in the online mode, such as using "Breakout Rooms" via the Zoom platform during this experiment, students thought the actual activities and group work in classrooms outperformed the virtual one: *"Interaction requirements are only met in face-to-face education."* They may have found more scaffolding in real classrooms by the instructors and peers, whereas they perceived online activities enhance isolation, and reduce opportunities for interaction and knowledge exchange: "*A feeling of loneliness and exclusion and a reduction in their opportunities for interaction, and participation associated during the lecture time*". This result can be interpreted due to the type of courses involved in the current study. Due to the involvement of teaching courses in this study that were related to teaching research methods, the mainstream teaching methods and activities may have required transferring a large amount of knowledge and demanding complex skills that demand face-to-face interaction and immediate feedback.

Hence, it is no wonder students in these courses were more engaged in face-to-face teaching as they may have involved practical applications and better teaching practices. Thus, students' preferences and

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
DOI: 10.55214/25768484.v8i4.1528

needs may vary according to the type of online course [26] This may highlight the importance of surveying students' preferences in advance to adapt and align the teaching content, methods as well as assessment tools accordingly. This came in vein with previous studies [30-38-41] as it was concluded that online education and E-assessment tools were confined to traditional methods of evaluation that may trigger anxieties and raise concerns regarding their effectiveness in achieving the learning goals and objectives.

4.2. Active Participation and Interaction between Face-to-face and Online Education

Based on the analysis, most participating students thought that direct interaction and participation outperformed face-to-face teaching mode more than e-learning. Students indicated that face-to-face mode and contact tend to strengthen social relationships and participation more among students and their instructors: *"Interaction and participation can be achieved face-to-face, the body language, as well as other forms of communication, can be better"*. They emphasized how this modality could have provided interactive opportunities for more dialogues and discussions, facilitating various forms of communication, including body language and freedom of expression. As declared by a participant,

In respect of students' attitudes towards participation and interaction in online teaching modality, it was indicated that this mode of learning remained limited in creating interactive and dialogical opportunities due to its inadequacy in fostering direct social interaction. Students insisted that communication is limited in the virtual environments; consequently, students' participation and interaction become restricted, especially when they compromise participation over the privacy and social circumstances of their family conditions, as confirmed by a student: *"I have younger siblings who keep yelling and playing around, so it is difficult sometimes to open the microphone and participate."*

These outcomes can be attributed in light of different variables. Although the researchers in the current study tried to immerse students in online activities that encourage their participation and engage them in more interaction and group work, participating students insisted that face-to-face teaching can allow for more interaction and participation and enhance social life better than online education. Students may have been engaged in more activities in direct social and collaborative learning that fostered collaboration and verbal and non-verbal communication opportunities, which can influence enhancing learners' motivation and engagement, especially during cooperative and interactive group work, where they can be allowed to express their opinions freely under the supervision of their instructors who recognize their diverse abilities and provide them immediate feedback [42].

It is noteworthy that even though instructors activated the collaborative work in online classes in the three courses, students emphasized they could not actively participate in online classes and even open the cameras or microphones in synchronous meetings trying to respect the privacy and social circumstances of their families. Thus, the restriction in their active participation can be attributed to the lack of readiness and poor infrastructure, which can negatively affect students' involvement and participation [23]. Students and their families may not be culturally and educationally aware of the potential for this teaching mode, so it is still underestimated and unvalued. Besides, lack of physical preparedness, limited access to electronic devices and internet connectivity issues could have been also factors that caused such negative attitudes. This aligned with Hollister et al., [42], who confirmed that learners tend to feel anxious when they confront troubles in virtual and remote teaching, such as technical obstacles and problems with internet connectivity.

One issue in favor of the online teaching mode, based on the analysis, was related to some students' perception of online education as a mode that can promote freedom and differentiation, particularly for students who feel shy and embarrassed to participate in face-to-face learning. This can be referred to the nature of the virtual environments that empower learners to have more control over their learning and become self-regulated, especially in the exam and in the availability of recorded lectures and learning materials, organization and time management. This finding was confirmed in previous studies [37- 41] that online learning can provide opportunities for participation and inclusion as this mode may assist

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ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
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shy students to ask and answer questions freely. However, this is still subject to students' preferences, performance and personality [37].

4.3. Accessibility of Education and Learning Materials between Face-to-Face and Online Education

Based on the analysis, most other participants believed that Face-to-face classes were more accessible than online meetings. It was described as more efficient due to the availability of physical infrastructure that allowed students to have direct interaction with peers and instructors on campus. Conversely, several students expressed their concerns regarding the availability of learning resources, such as printed materials and assignments. In contrast, learning resources in online teaching mode were considered more accessible by the participating students. It was confirmed that *"I felt more comfortable when I submitted online assignments or when the instructor sent us the course requirements via Ritaj or Moodle, I think it is more organized"*.

This result related to the accessibility of the learning materials in online education can be attributed to the availability and easy access to open learning resources that students were offered during online classes, including videos, articles, recorded lectures and so forth. As confirmed in previous studies [34-35-36) online education was regarded as a mode of higher education that offers equal sustainable access opportunities regardless of different backgrounds and barriers. Zdravkova and Krasniqi [34], for instance, asserted that online teaching mode can provide equal rights to all learners regardless of their physical and mental disabilities.

4.4. Equity and Justice Between Face-to-Face and Online Education

Based on the analysis, the majority of the participating students perceived face-to-face teaching mode as a more just mode related to the effectiveness of teaching methods, participation and assessment. Students believed that this mode provided well-grounded knowledge allowing individual and collective freedom of expression and offering better opportunities for suitable teaching practices and feedback provision. It was also perceived as a teaching mode that is open, knowledge-producing and just. However, most participating students highlighted the absence of fairness and justice in online teaching mode due to shortcomings in fair assessment. Students described this mode as a teaching approach that deprived them of fair participation opportunities, in addition to assessment issues and academic dishonesty, such as cheating and using ready-made digital resources by some students. It was stated that *"Justice is achieved in face-to-face education more. Professors can observe and monitor our participation, students get the grades they deserve and no room is for cheating"*.

This finding can be attributed to the type of courses that were involved in the current study. As stated earlier, two courses in the current study were related to teaching research skills, so the types of assessment and feedback in face-to-face classes were diverse and mainly formative, such as group projects and presentations of their assignments. Students, therefore, could receive feedback before the final submission of their assignments. On the other hand, assessment in online teaching mode was summative and confined to a single tool, such as close-ended tests (i.e. multiple-choice), which tended to be perceived as unfair and more prevalent to cheating. As stated by Jorre de St Jorre et al [8], for example, E-assessment procedures and techniques should be planned to emphasize relevant learning objectives parallel with meeting their needs and preferences. It was also asserted that most of the common online tools of E-assessment were confined to the traditional methods of evaluation raised worries about the effectiveness and trustworthiness in achieving the learning outcomes as well as justice and inclusion [29-30-38]

One of the significant issues the participating students elevated in the context of achieving equity in online education was related to the importance of investing in online teaching mode in the Palestinian context as an occupied country due to political and economic obstacles. Students addressed the obstacles that they encounter daily regarding the checkpoints and the sudden compulsory closures by the Israeli occupation that tended to deprive many students of arriving on time to the campus to attend lectures or conduct exams. In this regard, they stated that online teaching and assessment can be more flexible and

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
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suitable in such circumstances. Therefore, online education can serve equity as a temporary solution, especially in crises, but may not be a complete substitute due to challenges in providing equitable access to technological tools [34-35].

5. Conclusions

Based on a critical analysis of the previous results in the current study, it can be concluded that a hybrid mode of teaching can be educationally inclusive after addressing some concerns and challenges. The combination of traditional classroom instruction with digital platforms can foster an inclusive learning environment that addresses diverse student needs, but this requires careful consideration and strategic implementation and planning. Online teaching and face-to-face teaching methods should be blended in harmony and complementary methods. Also, Learners' needs and preferences should be investigated before determining the teaching methods and activities for each mode. Students, for instance, can be involved in collaborative work in online and face-to-face teaching modes, yet teaching methods can be designed after surveying students' preferences.

Aligning the learning objectives of each course with the activities in teaching modes is of value as the nature of the courses delivered online or face-to-face is a significant factor in the effectiveness and success of the hybrid mode. Courses that require practical skills and field experience can be integrated differently from theoretical-based courses that demand self-work. Meanwhile, A hybrid approach should accommodate diverse learning styles, paces, needs and abilities. By providing a range of instructional materials and formats, educators can engage students through multiple modalities, enhancing comprehension and knowledge retention. This may demand training and support for instructors to become well-prepared to integrate technology and online tools pedagogically with face-to-face teaching mode to enhance students' personalized learning experiences.

Overall, in the context of investigating BZU students' perspectives concerning the inclusivity of online and face-to-face teaching modes, it can be recommended that a combination of these modalities may achieve a comprehensive and inclusive educational experience. Particularly, when training educators on inclusive teaching practices, guaranteeing the accessibility of the online course and the investment in technology and infrastructure are prioritized by all developmental parties.

Funding:

This research project was funded by the Foreign Affairs of Finland (MFA) Ulkoministeriö. Grant number "5CG7260RHV-28" as part of OLIVE project results.

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Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 4: 1565-1576, 2024
DOI: 10.55214/25768484.v8i4.1528

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Edelweiss Applied Science and Technology
ISSN: 2576-8484
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