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Online Education and its Relevance for Pakistan: A Case Study of Professional Development and Research Institute Pakistan (PDRI)

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Abstract

This article debates the need and importance of alternative education by comparing online and on-campus modes of learning. Focusing on the (PDRI) in Pakistan, which was shifted to online education during the pandemic, this research aims to determine the benefits and drawbacks of both methods. This research will further identify the role of AI in modern online education and the problems posed by the alternative methods. For extended access and flexibility in post-COVID Pakistan, e-learning has emerged as an important solution. It, however, comes with difficulties in technological participation barriers and quality assurance challenges. On-campus education offers face-to-face interaction and campus resources. This paper, therefore, argues for future research directions in the pursuit of hybrid models, addressing socio-cultural barriers by building digital literacy toward more inclusive education systems. These insights seek to enlighten stakeholders on how to establish an adaptable and resilient system of education for their digital future.

Keywords: Alternative Education, PDRI (Professional Development and Research Institute), Online Education, Hybrid Learning

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Title

Online Education and its Relevance for Pakistan: A Case Study of Professional Development and Research Institute Pakistan (PDRI)

Abstract

This article debates the need and importance of alternative education by comparing online and on-campus modes of learning. Focusing on the (PDRI) in Pakistan, which was shifted to online education during the pandemic, this research aims to determine the benefits and drawbacks of both methods. This research will further identify the role of AI in modern online education and the problems posed by the alternative methods. For extended access and flexibility in post-COVID Pakistan, e-learning has emerged as an important solution. It, however, comes with difficulties in technological participation barriers and quality assurance challenges. On-campus education offers face-to-face interaction and campus resources. This paper, therefore, argues for future research directions in the pursuit of hybrid models, addressing socio-cultural barriers by building digital literacy toward more inclusive education systems. These insights seek to enlighten stakeholders on how to establish an adaptable and resilient system of education for their digital future.

Keywords: [Alternative Education](#), [PDRI \(Professional Development and Research Institute\)](#), [Online Education](#), [Hybrid Learning](#)

Introduction

Alternative education is an umbrella term that covers a broad range of educational methods that are not related to the

mainstream education that students usually encounter in a traditional school. It is a package of diverse learning settings, teaching methods, and curricula suited for students with

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different abilities and inclinations (Osman, 2020). Alternative education is seen more and more as a progressive and flexible approach to learning with many ameliorating traits and also the strengths of traditional school education.

The important thing for alternative education is to acknowledge the different kinds of learning styles and needs of the learners (Maddux, 2004). Commonly in-class education is a common strategy that ignores individual interests, skills, and pace of learning. Unlike the traditional type of education, the alternative system can have a more personalized and individualized learning approach which enables the learners to be free to explore what interests them most, take part in practical activities, and study at the rate they feel comfortable with. This flexibility is of particular importance for students who encounter problems in regular classrooms and need some additional support to succeed in their studies.

For students, alternative education is also all about experiential learning, the real-world application where they can have project-based learning, internships, community service, and other enriching activities that are beyond the walls (Dumford & Miller, 2018). By means of interactive, experiential activities the alternative education model fosters the development of the students' critical thinking, problem-solving, creativity, and collaboration. These four skills are in demand today in the world which is rapidly changing and interconnecting.

One more significant aspect of alternative education in contemporary life is reflected in the meaning of lifetime learning and skills development which appeared because of the quicker pace of the world's technological progress and reorganization of labor markets (Palvia et al., 2018). In view of deviations from the established notions of a traditional career path and emerging novel industries, adaptability skills, digital literacy, communication, and entrepreneurship are becoming more relevant and meaningful. Leading alternative education programs, the development of modern skills is always underlined. Thus, the students are equipped with the required tools and skills to deal with the existing challenges and the manifold opportunities in today's job market.

Furthermore, alternative education offers an opportunity for the disadvantaged and the poorest community members to get a high-quality education to improve their social status. The goal of these programs is the construction of a participatory, culturally sensitive, and inclusive alternative learning ambiance that can challenge

social injustices and provide people with diverse backgrounds the academic space they need to achieve their dreams and to perform to their full potential (Johnson, Veletsianos, & Seaman, 2020).

Research Objectives and Questions

Research objectives

- To explore the necessity and significance of Alternative Education
- To evaluate the pros and cons of on-campus education
- The Role of AI and modern online education.

Research Questions

1. What is modern alternative (online education) and its significance?
2. What is the difference between the two and challenges?

Significance of the Study

The case study of the Professional Development & Research Institute (PDRI) in Pakistan is crucial in several aspects since it stresses the peculiar problems and trends of alternative education that is especially in the case of developing countries like Pakistan (Osman, 2020). In the beginning, the e-learning during the COVID-19 pandemic demonstrated to PDRI students how well internet-based education copes with emergency conditions. The sudden shift of education institutions globally to online the PDRI case study provides an example of how an institution in a developing country managed these challenges such as inadequate technology facilities, digital gaps, and innovative pedagogy in the unexpected turn.

The example of PDRI's work in the field of online education proves that alternative education is a contributor to the solving of the systemic limitations of education access and quality in Pakistan. Through the use of distance learning technologies that are not restricted by geographical boundaries or traditional school facilities, PDRI is a clear example of how alternative education is a means of inclusion and broadening educational access to students from various cultures, including those in remote or deprived areas (Adnan & Anwar, 2020). Besides, the PDRI's experience confirms the necessity of the use of technology and innovation to improve educational results and professional development opportunities in areas with limited resources.

The case study of PDRI is a good example of the best practices and lessons that could be used globally to reshape the educational system using digital tools and platforms in developing countries (PDRI,2024). Besides, PDRI's move to online education demonstrates the importance of strategic planning, capacity building, and stakeholder collaboration in order to make the alternative education initiatives sustainable and scalable. The way PDRI's challenges, successes, and lessons learned will be studied, policymakers, educators, and stakeholders will be able to learn from them and thus the effective strategies and interventions that will be used to foster the growth and resilience of alternative education ecosystems in Pakistan and beyond(Adnan & Anwar, 2020). The study of PDRI Pakistan provides a detailed insight into the risks and chances that are related to alternative education in a developing country scenario.

Through the PDRI's experiences, this case study brings to the fore the issue of alternative education in the bigger picture of educational inequities, innovation, and lifelong learning in diverse sociocultural contexts. The choice of the Professional Development and Research Institute (PDRI) in Pakistan as the case study was on purpose and well-thought-out for various reasons which, thus, made the study of alternative education both comprehensive and meaningful. Firstly, PDRI is a reputable educational institution in Pakistan, and this is the reason why it is a perfect choice for studies (PDRI,2024). Thus, with its dedication to professional learning and research, PDRI has become a significant player in the educational scene of the country, which is the reason why it is a good subject for analysis. Besides, the PDRI's initiative to cope with the COVID-19 pandemic by shifting to online education signifies its flexibility and creativity in dealing with the crisis. This choice not only proves that PDRI is dedicated to continuity in education but also allows us to investigate the problems and the opportunities linked to such a transition, especially in a developing country such as Pakistan.

Moreover, PDRI projects in online education are in line with the general goals of this research paper, which are to explore the importance of alternative education, assess the advantages and disadvantages of the different learning systems, and look at the part of technology, especially AI, in the current method of education delivery (Koh, 2020). PDRI's experiences can be used to get an idea of the effectiveness of the alternative education models, the difficulties of online learning implementation, and the potential of technology for the enhancement of educational outcomes.

Similarly, PDRI's case study provides practical lessons and a list of recommendations that can be used by policymakers, teachers, and other stakeholders who want to promote alternative education and use technology to the advantage of educational development in Pakistan and other similar countries. Through the study of PDRI's strategies, achievements, and limitations, the stakeholders can find the possibilities for collaboration, capacity building, and policy reform of the alternative education initiatives in the region which will make them grow and become sustainable. In short, PDRI was the subject of this case study because of its high position in the Pakistani educational system, its active effort to overcome the obstacles caused by the COVID-19 pandemic, and its compliance with the research objectives of this study (PDRI,2024). Through the analysis of PDRI's experiences, this case study is going to widen the discussion on alternative education and will create ways for educational innovation and improvement in Pakistan and around the world.

Exploring the Necessity and Significance of Alternative Education

The requirement and the importance of alternative education is the realization that the conventional systems of education are not enough to cater to the different needs, interests, and learning styles of all students. Hence, alternative education provides innovative approaches and flexible learning environments that are suitable for any type of learner, thus individualizing the learning process and promoting the holistic development of the learners(Marinoni, Land, & Jensen, 2020). To grasp the significance of alternative education, it is required to follow its development and to study the different models that have come up in history. The history of alternative education can be traced back to the progressive educational philosophies that were established in the 19th and 20th centuries.

Theorists like John Dewey and Maria Montessori supported the student-centered learning approaches that focus on hands-on experiences, critical thinking, and experiential learning rather than rote memorization and passive instruction (O'Keefe, Rafferty, Gunder, & Vignare, 2020). These early reformers founded the basis of alternative education by questioning the regular schooling methods and campaigning for educational changes that would serve the student's needs and interests. The 20th century saw alternative education that was constantly changing in

accordance with social, cultural, and political changes. The countercultural movements of the 1960s and 1970s were the main reasons for the establishment of alternative schools and educational experiments that aimed to question the norms of mainstream education and to promote freedom, creativity, and social justice (UNESCO, 2021). Through free schools and democratic schools to homeschooling and unschooling movements, alternative education was created in different ways, each reflecting different pedagogical philosophies and educational goals.

In the last few decades, alternative education has become a topic of interest and an important one in the time of globalization, technological development, and the movement of the job market. Now that the world is becoming more and more connected and the issues are growing, there is a greater awareness of the importance of educational methods that help students be ready for the challenges and opportunities of the 21st century (Kalloo, Mitchell, & Kamalodeen, 2020). Besides traditional schooling, alternative education models such as online learning, blended learning, project-based learning, and competency-based education have come out as the right alternatives to conventional schooling, thus providing students with the opportunity to thrive in a fast-changing world. Besides, alternative education is the key to solving the social injustices and inequalities that exist in our society. Through the use of inclusive learning environments that cater to the differences of students, alternative education can bridge the achievement gap, lower dropout rates, and empower marginalized communities to get quality education and the chances of upward mobility.

In conclusion, the change in alternative education demonstrates the increasing awareness of the shortcomings of conventional educational models and the necessity of innovative approaches that mainly focus on student-centered learning, flexibility, and inclusivity (International Association of Universities, 2020). By following the history of alternative education and studying its different models, we can understand the importance of its role in the promotion of educational equity, in the development of lifelong learning, and in the preparation of students for the 21st century. In Pakistan, the attempts to adopt alternative education are on the rise, which is because of the realization that the traditional education system is facing some problems and the need to provide quality education for all the citizens is there which should be equitable.

Examining Alternative Education in Pakistan

Although the conventional schooling system is still the main one, there have been many initiatives and interventions that aim to support alternative education models and practices throughout the country. An example of a significant activity is the creation of alternative schools and learning centers that are for the benefit of marginalized communities, such as rural people, street children, and girls (Crawford et al., 2020). These schools usually exist outside the formal education system and provide learners with flexible, community-based learning opportunities that are personalized to their specific needs and circumstances.

Organizations like the Citizens Foundation (TCF) and The Indus Resource Centre (IRC) have been the main forces in the establishment of alternative schools in remote areas, hence, giving opportunities for education to marginalized children and making the communities take responsibility for their children's learning. Also, digital technology has made it possible for digital education to be extended through online learning platforms and distance education programs (Adnan & Anwar, 2020). Because of the COVID-19 pandemic, many educational institutions in Pakistan, such as universities, colleges, and training centers, shifted to online education to enable learning to continue despite the physical restrictions. The change to online learning has created new opportunities for alternative education, as learners can now access educational resources and opportunities remotely, no matter where they are located in the world. Besides, the search for alternative education in Pakistan has been supported by civil society organizations, NGOs, and international development agencies. These stakeholders have been the ones who have been the ones to be involved in the advocacy of educational reforms, conducting research, and the ones who have been the ones to have implemented innovative projects which have been the ones that have been aimed at the expansion of access to alternative education, the improvement of educational quality, and the fostering of inclusive learning environments.

Besides, the Government of Pakistan has also made efforts to support alternative education through policy initiatives and programs that aim at the expansion of educational opportunities and the diversification of the needs of different learners (Osman, 2020). To illustrate, the National Education Policy (NEP) 2021 stresses the importance of alternative education and lifelong learning, indicating the necessity of the diverse needs and aspirations of learners to be met through the use of flexible and

innovative approaches (Abbasi, Ayoob, Malik, & Memon, 2020). Nevertheless, the main problems in integrating alternative education in Pakistan are still present such as the lack of funding, inadequate infrastructure, and socio-cultural obstacles. Besides, the quality and relevance of alternative education programs are mainly dependent on long-term investment in teacher training, curriculum development, and educational research.

Although progress towards the acceptance of alternative education in Pakistan is still being made, the relevant stakeholders, such as the government, civil society, and international partners, are contributing to the extension of educational opportunities and the promotion of inclusive and equitable learning environments across the country (Tratnik, Urh, & Jereb, 2017). Through the expansion of these initiatives and the resolution of the current problems, Pakistan can be more dedicated to alternative education, and hence all the citizens can get learning opportunities at the level of their desired capacity.

Exploring the Importance of Accessibility and Flexibility in Alternative Education

The significance of accessibility and flexibility in education is undeniable, especially in the area of alternative education. Accessibility is about the possibility of people having an education regardless of their geographical location, socioeconomic status, physical abilities, or other barriers. Flexibility, on the other hand, is the adaptability of educational systems to different learning needs, preferences, and life situations (Young & Norgard, 2006). Accessibility and flexibility are two of the most important aspects of alternative education models because they allow learners to break down the traditional barriers to education and go for the learning experiences that are tailored to their individual circumstances and aspirations. Among the main advantages of alternative education is its capacity to enhance accessibility by offering learning opportunities that are not restricted by conventional constraints such as physical classrooms, fixed schedules, or scarce resources. Online learning platforms, distance education programs, and community-based learning centers are the means through which alternative education provides people who would otherwise not be able to attend school, like those who live in remote areas, working adults, disabled people, or the marginalized communities, a chance to get an education.

Besides, alternative education stresses flexibility in both the delivery and the structure of the educational programs, thus, the learners can participate in the learning activities at their own pace, on their own schedule, and in the environments that suit their needs (Ansar, Ali, Khattak, Naveed, & Zeb, 2021). This flexibility is especially useful for learners with various learning styles, preferences, and life circumstances, as it enables them to take charge of their learning journey and pursue the educational experiences that suit their interests, goals, and abilities. Besides, alternative education models are created for the purpose of meeting the different learning needs and preferences by providing different pedagogical approaches, curriculum options, and support services according to the individual needs of the learners.

Through project-based learning, experiential learning, competency-based education, or personalized learning pathways, alternative education enables learners to participate in meaningful, relevant, and impactful learning experiences that are related to their interests, strengths, and aspirations. Through the inclusion of accessibility and flexibility, alternative education not only widens educational opportunities for underserved populations but also promotes inclusivity, equity, and empowerment (Yang & Cornelius, 2004). It allows people to get rid of the obstacles to education, to continue learning throughout their lives, and to achieve their full potential, no matter what their background or situation is. Thus, accessibility and flexibility are the main principles that support the transformative power of alternative education in promoting educational equity, social justice, and human development.

Analyzing the Role of AI in Modern Online Education

The use of AI in modern online education has brought a change in the way learning experiences are given, customized, and evaluated. AI technologies have a variety of capabilities that improve the effectiveness and efficiency of online education platforms, thus, providing a personalized learning experience, and facilitating the assessment and feedback mechanisms, while at the same time, they pose some important ethical concerns and challenges.

- Integration of AI for Personalized Learning: The AI algorithms study the huge amount of data on learner behaviors, preferences, and performance to adjust the learning process to the specific requirements of each student. With the help of adaptive learning systems, AI

can recognize the strengths, weaknesses, and learning styles of each student and accordingly change the content, pace, and difficulty levels of the learning process (Ansar, Ali, Khattak, Naveed, & Zeb, 2020). The personalized learning pathways allow the learners to go at their own speed, get the necessary support, and be more involved in the course materials, thus, the learning outcomes and retention rates are greatly improved.

- **AI-driven Assessment and Feedback Mechanisms:** Through the use of AI-powered assessment tools, the grading process is automated, thus, students are given prompt and precise feedback on their assignments, quizzes, and exams. NLP algorithms can analyze written responses, essays, and other text-based submissions and evaluate their content, coherence, and grammar with a level of precision that is the same as human graders (Akram, Anjum, & Batool, 2020). Besides, machine learning algorithms can be used to monitor the student's progress, detect the areas of improvement, and suggest interventions or resources that will help the student achieve his/her learning goals.
- **Ethical Considerations and Challenges:** Nevertheless, despite the advantages of AI in online education, the ethical issues and the challenges that have to be solved are still there. The main issue is the possibility of algorithmic bias, where AI systems will either unintentionally or unknowingly support or intensify the existing inequalities, which are based on factors such as race, gender, or socioeconomic status (Louis-Jean & Cenat, 2020).

Moreover, there are also some worries about data privacy and security, especially about the collection and use of sensitive student data by AI algorithms. The transparent and accountable AI decision-making processes are the key to the fairness, trust, and ethical use of AI technologies in education. Besides, there should be continuous research and discussion on the ethical issues of AI in education, such as algorithmic transparency, data ownership, and digital equity.

AI is essential in modern online education, it helps to create individual learning experiences, to speed up the process of assessment, and to improve the educational results. Nevertheless, the ethical issues and the challenges with algorithmic bias, data privacy, and transparency must be solved in order to make sure that AI technologies are used

properly and equally in educational settings (Palvia et al., 2018). Through the proper and ethical use of AI in online education, educators and policymakers can unlock the full potential of the technology to change teaching and learning in the digital age.

Exploring Integration of AI in Alternative Education of Pakistan

In the Pakistani context, the integration of Artificial Intelligence (AI) in modern online education has both opportunities and challenges that are peculiar to the Pakistani educational system. Pakistan faces the problems of access, quality, and equity in its education system, thus AI technologies present the solutions that can be used to solve these problems and at the same time also ethical issues are raised.

- **Integration of AI for Personalized Learning:** In Pakistan, where educational resources and opportunities are usually scarce, AI-supported personalized learning platforms can be a game-changer in the process of providing access to quality education to people. Through adaptation of the learning experiences to each student's needs and preferences, AI algorithms can make the difference between rural and urban students, and thus, the rural students who do not have teachers or educational materials can be helped with the AI algorithms (Palvia et al., 2018). Furthermore, AI-based adaptive learning systems can solve the problem of the different linguistic and cultural backgrounds of Pakistani students by providing the content in multiple languages and dialects thus, increasing the inclusivity and accessibility.
- **AI-driven Assessment and Feedback Mechanisms:** AI-based assessment tools are able to change the way student learning evaluation and feedback is given in Pakistan. In a country where traditional assessment methods, such as standardized tests are not able to reflect the full range of students' skills, AI algorithms can provide more detailed and comprehensive assessments that consider different learning styles, cultural contexts, and socio-economic backgrounds. In addition, AI-based feedback systems can enable Pakistani students to get immediate and useful feedback on their academic activities, which can help

them find their weak points and take responsibility for their own learning (Osman, 2020).

- Ethical Considerations and Challenges: Even though AI is an important tool for online education in Pakistan, there are numerous ethical issues and challenges that have to be solved before the technology can be widely used. Considering the diverse socio-cultural context of Pakistan, there is a danger of algorithmic bias and discrimination if AI systems are not designed and implemented carefully to consider cultural sensitivities and contextual factors.

Besides, the worries about data privacy and security are even more important in Pakistan, where the problems of digital literacy and awareness are very common. Making sure that the data collection and use of a student is transparent, accountable, and informed is crucial to the trust and confidence in AI-based educational platforms (Osman, 2020). To put it briefly, the fusion of AI in modern online education is a great opportunity to overcome the specific problems of Pakistan's education system. Through the use of AI technologies appropriately and ethically, Pakistani educators and policymakers can employ the technology to increase access to quality education, improve learning outcomes and, at the same time, promote inclusivity and equity in the education sector of the country (Adnan & Anwar, 2020). Nevertheless, it is necessary to face ethical issues and challenges in a careful way so that AI-driven educational innovations can be used to help all Pakistani learners equally.

Research Questions

1. What is modern alternative (online education) and its significance?
2. What are the differences between online and on-campus education, and what challenges do they pose?

Examining the Case of Alternative Education through PDRI Pakistan Case Study

The PDRI, located in Pakistan, is the leading organization aimed at the upgrade of the employee's skills and competencies in every profession. PDRI has set a mission for professional development and training that is sensitive to the needs of the learners. The program schedule covers courses, workshops, and seminars, which are based on the current trends in the labor market.

Key Milestones

1. Establishment of PDRI: PDRI was established with a mission to be the number-one professional body relating to development and research in Pakistan. As soon as the establishment of PDRI, the quality of education, research, and innovation was made the core area of the institute's works.
2. Expansion of Course Offerings: PDRI has been growing the number of its educational programs which deal with a wide range of significant areas including management, technology, health care, and so on. These educational programs are designed to equip professionals with the essential knowledge, skills, and competencies required for career growth in their particular fields.
3. Transition to Online Education: As a result of the COVID-19 crisis, the face-to-face educational program was replaced with the e-Teaching at the PDRI. By utilizing its digital infrastructure and talented youth, PDRI has transformed traditional face-to-face training into online educational portals and this has served the goal of uninterrupted education and helped professionals countrywide.
4. Innovative Learning Resources: Our PDRI's website offers the most efficient way of downloading course materials, signing up for virtual classrooms, and joining interactive learning exercises. The online platform of PDRI serves as the medium of resources such as multimedia and interactive modules and tools for communication, thus bettering the learning experience of the participants.
5. Participant Engagement Initiatives: Having the features of the virtual networking events, the live Q&A sessions and the interactive polls and quizzes introduced in the online learning environment by the PDRI facilitates the communication and participation of the students. These events are intentionally structured to hit those keys; a sense of teamwork, sharing, and community building.
6. Commitment to Equity and Inclusivity: PDRI is a team that still engages with educational demands with regard to inclusiveness and equity in online teaching. Scholarship programs, subsidies, and special provisions are among the areas the institution addresses to make sure that all students are provided with educational opportunities and support.

7. Future Directions: The next point is to enhance the participation of the users, and pay attention to the technical readiness while exploring the HBR models which integrate digital and non-digital factors. PDRI is attempting to achieve this situation by improving the use of new technologies and the flexibility of professionals and the workforce of Pakistan.

Given this, one can say that online education will help PDRI achieve its mission of excellence and innovation in the professional development of IT professionals. PDRI has a commitment to excellence, unrestrictedness, and inclusiveness that has made it the frontline organization in the education sector in Pakistan (PDRI,2024).

Overview of PDRI and its Transition to Online Education

The Professional Development & Research Institute (PDRI) based in Pakistan is a well-known institution that has shown several noteworthy steps in the arena of professional development and formal education. With the objective of improving the professional skills and competencies of people coming from different sectors, PDRI provides various training programs, workshops, and seminars that could help cater to the ever-changing face of workforce demand in Pakistan (Adnan & Anwar, 2020). Along with the difficulties encountered during the operation of the pandemic, PDRI has made an outstanding conversion to online education from the original classroom-based training.

The transition amid the COVID-19 pandemic was necessitated by the need to preserve the integrity of education and training, in line with social distancing guidelines and lockdown measures put in place to halt the spread of the virus. The transition to online education involved several key steps and initiatives:

- Digital Infrastructure Development: PDRI enhanced its digital capacity by incorporating new LMS, online video conferencing facilities, as well as electronic collaboration tools. Thanks to the online infrastructure of PDRI, the participants could participate in live interactive techniques, get access to course materials, and even communicate with the trainer remotely (Akram, Anjum, & Batool, 2020).
- Curriculum Adaptation: PDRI revised its training programs and course syllabus to fit the online platform which contained elements of interactive multimedia components, asynchronous learning modules, and

virtual simulations that helped engage participants and facilitate active learning experiences (Akhter & Mahmood, 2018). Trainers themselves had been through training on proven online teaching methodologies and techniques and they were supposed to pass on the instruction in a virtual (online) environment only at the highest quality.

- Participant Engagement: PDRI applied different techniques to maximize the involvement and communication of participants in the online courses such as breakout rooms, interactive polls and quizzes, virtual networking events, and live Q&A sessions with subject matter experts. These interactive tools assisted in the development of the individual interest of a participant as well as encouraged a feeling of belonging and teamwork among the learners.
- Technical Support and Assistance: Through PDRI, technical help and consultation were offered to participants to guarantee the seamless adoption of online learning by participants. This comprised among others the provision of tutorials and guides on using the online learning platform as well as troubleshooting technical problems and assisting students to get course materials and resources (Akram, Anjum, & Batool, 2020).

Overall, the PDRI's transition into the online education system has demonstrated its spirit of being innovative, adaptive, and resilient even in the face of unreasonable challenges. PDRI has taken on the role of a trailblazer in providing digital technologies and online learning platforms, which will eventually result in the upgrading of professional capacity throughout Pakistan in a variety of sectors and industries

Challenges and Opportunities for PDRI

In the wake of the COVID-19 pandemic, PDRI swiftly redesigned its operations to continue offering the same quality of teaching and professional development to the community it served. Using its internal digital infrastructure and knowledge, PDRI managed to switch its longstanding in-person training courses to online learning platforms (PDRI,2024). This way PDRI could bridge the gap of education, expanding their spectrum of impact for professionals all around the country of Pakistan. For instance, PDRI utilized its website (<https://www.pdri.edu.rp/>) will

then be used as a principal entry point for accessing course materials, joining virtual classrooms, also taking part in interactive learning tasks.

Through this website, students can register for online courses, resource libraries, and talks with instructors and peers. However, technology hurdles, participation, and inclusiveness were some issues we confronted when shifting to the online learning mode. Others had challenges with Internet connectivity or lacked digital devices which in turn affected their participation in the online classes. PDRI addresses these challenges by providing technical support services, offering digital literacy training programs, and examining delivery methods using competent offline learning materials. In spite of the obstacles, PDRI showed readiness, foresight, and innovation in adjusting the needs of the learners as the situation became clear.

PDRI has integrated a new development to the existing virtual setting with features such as virtual networking events, live Q&As with subject matter experts, and polls and quizzes, all of which contribute to participant engagement and interaction. Looking into the future, pushing PDRI to enlarge the involvement of participants, seeking equity, and addressing diversity can lead the innovation in the area of online education (Abbasi, Ayoob, Malik, & Memon, 2020). Through harnessing what has been learned from the pandemic and embracing future technologies, PDRI remains steadfast in its pursuit of advancing professional development and general workforce development in Pakistan. Such an endeavor of PDRI aims at empowering individuals, organizations, and communities to be able to prosper in the digital and interconnected milieu that is the modern world.

The transfer of face-to-face education to online platforms due to the pandemic gave PDRI some vital lessons as well as insights that can be used for better educational practices and strategies in the future. Consequently, PDRI is to take the lessons learned into consideration while working with online education and shaping its future methods in professional development and labor market training. PDRI realized the significance of being technologically competent to deal with unplanned problems to a greater extent (PDRI, 2024).

The pandemic highlighted the need for resilient digital infrastructure, comprising such of high internet connectivity, user-friendly learning management systems, and effective technical support services. Ahead, PDRI will invest in digital technologies as well as infrastructure for the smooth delivery

of online instruction and for it to be effective in meeting students' needs (Abbasi, Ayoob, Malik, & Memon, 2020). The pandemic proved that the ability for flexibility and adaptability is the vital component in crisis management. PDRI showcased its adaptability by rapidly transitioning its classrooms to virtual learning platforms, redesigning its curriculum, and introducing new methods of teaching to suit students in such a virtual environment.

This adaptability will, thus, be key to supporting PDRI in dealing with the uncertainties and the changing face of education environments in the future. PDRI acknowledged the importance of creating a connection and interaction in online learning formats. The absence of face-to-face communication did result in getting the participants engaged and collaborative. The PDRI attempted several interactive features and engagement tactics to boost active learner participation by introducing virtual networking events, live Q&A sessions, and collaborative group activities (Akram, Anjum, & Batool, 2020). To be sure, PDRI will seek out novel methods in the future to enhance student engagement and participation in the online classroom. 4. Equity and Inclusivity: The pandemic shines a light on the existing gaps in online education, especially among the marginalized and the underprivileged.

PDRI learned through its experience that equity and inclusivity were of prime importance and must be considered in the development of online educational projects to allow all learners to have the same chances to get education and assistance. PDRI will keep on pushing for digital welfare and its accessibility, providing scholarships, subsidies, and accessibility accommodation to ensure equity in the use of online learning

The hybrid learning approach explored by PDRI aimed to leverage the benefits of online and offline modalities by considering the merits of both approaches. Hybrid models provide flexibility, convenience, and personalized learning situations – all whilst maintaining the presence of face-to-face interaction and practical activities (Young & Norgard, 2006). PDRI will consider hybrid learning models that include online and face-to-face aspects in order to enhance the effectiveness and accessibility of its educational programs. With technological preparedness, flexibility, engagement, equity, and hybrid learning as its mainstay, PDRI will continue to be innovative and open to change so that it can respond to the needs of its learners and support the advancement of workforce development in Pakistan. With its

dedication to quality and diversity, PDRI is ready to serve as a torchbearer towards the formation of the new era of online learning all over the country.

The multi-faceted and impactful role of the Professional Development & Research Institute (PDRI) in distinctive education in Pakistan is functional (Akram, Anjum, & Batool, 2020). The PDRI stands as the key instigator in the implementation of quality education, the development of innovative ideas and solutions, and resolving the different learning challenges of professionals in various fields. Here are some key aspects of PDRI's role in alternative education:

- PDRI is a pioneer of online learning in Pakistan. It endeavors to provide a wide coverage of courses, workshops, and seminars through online mode to its users. With the help of technology as well as web-based learning materials, PDRI extends education to the communities outside the classroom system by targeting people in distant and underprivileged areas.
- Facilitator of Lifelong Learning: PDRI provides for lifelong learning through the offer of professional continuous development skills for individuals at different stages of the profession and career growth. By virtue of its online courses and training programs, PDRI facilitates the re-skilling of professionals in terms of upgrading their current skill set, acquiring new knowledge, and staying at the forefront of the trends and technologies of their current fields.
- Promoter of Flexibility and Accessibility: PDRI facilitates the flexible and accessible nature of education by offering online learning options that possess a great fit for different learning styles and necessities (Young & Norgard, 2006). Through offering individualized learning modules, interactive multimedia resources, and flexible scheduling options, PDRI advocates for a learner-centered educational experience by allowing learners to personalize the experience according to their social commitments and lifestyles.
- Provider of Industry-Relevant Training: PDRI offers industrial training programs that are specifically tailored to meet the changing needs of the job market and workforce. Such programs align with the evolving job demands. With industry experts, professional associations, and employers working together, PDRI makes sure that the courses are current, okay, and functional for the existing industry standards and practices (Abbasi, Ayoob, Malik, & Memon, 2020).
- Advocate for Quality Assurance: The PDRI helps to keep the level of quality assurance of online education at a high level by ensuring strict standards of instructional design, course content, and learner support services. Continuous evaluation and improvement oversight of online courses is a vital aspect of PDRI's maintenance of its quality and credibility. It ensures a positive learning experience for the participants (Akram, Anjum, & Batool, 2020).
- Catalyst for Innovation: On the other hand, PDRI is an emerging force in the process of inspiring innovation by integrating technologies, pedagogical models, and learning methods. Through this research of new instructional strategies, interactive learning tools, and engagement activities, PDRI causes online education to be innovative and makes progress in the education of the country (Abbasi, Ayoob, Malik, & Memon, 2020).
- Community Engagement and Outreach: PDRI liaises with community, institutional, and stakeholder groups to increase awareness levels about the benefits of the combined type of education and encourage people's participation in the e-learning programs. PDRI builds connections, conducts outreach initiatives, and advocates for a coalition and collective efforts in promoting education equity where every individual will have the opportunity for a good education. Overall, the PDRI is the central enabler in the development of alternative education in Pakistan through online learning, promoting flexibility and accessibility, delivering industry-relevant training, developing quality assurance strategy, fostering innovation, and linking the community (Akhter & Mahmood, 2018). The PDRI will have its mission to superb delivery through inclusiveness and continuous improvement of education in general and in lifelong learning in particular.

Conclusion

In summing up this discussion, the transition to online learning at the Professional Development & Research Institute (PDRI) in Pakistan, reemphasizes the transformative possibilities and the dilemma involved in embracing e-learning as a solution to tackling new realities

and demands. While Providing an equal opportunity of accessibility and flexibility for learners Online Learning requires certain issues to be handled such as Infrastructure Technology, Engagement Strategies, and Quality Assurance (Ansar, Ali, Khattak, Naveed, & Zeb, 2020). Otherwise, on-campus college education is still a preferred option for its ability to deliver personal contact, campus amenities, and social networking opportunities, while it is undeniable that it faces challenges such as geographical restrictions, rigidity, and affordability.

Hence, policymakers and educational leaders must jointly combat the systematic barriers to alternative schooling, which include the digital divide, quality assurance, and social assimilation challenges. Investing in the digital infrastructure, promoting awareness, and enhancing collaboration among the key stakeholders will produce an adaptable and inclusive system of education that takes into consideration the advantages of both the online as well as the on-campus education model. In addition, research and practice of alternative education in the future should focus on equity, accessibility, and lifelong learning, letting innovative technology, public-private partnerships, and community engagement be the motivations to both individuals as well as entire communities for getting along with the digital era. By means of community participation and constant improvement, we can make sure there would be education always acts as an embellishing element for social mobility, economic progress, and human development in Pakistan and all other parts of the World (Abbasi, Ayoob, Malik, & Memon, 2020).

Recommendations for Policymakers and Educators

1. **Invest in Digital Infrastructure:** More investments in digital infrastructure should be made a priority so that the digital gap can be bridged and all students will get equitable access to online education. This, on the one hand, means spreading out broadband connections, furnishing devices in marginalized areas, and training people with technological literacy programs to ensure their digital skills.
2. **Strengthen Quality Assurance Mechanisms:** Policymakers must come up with standardized quality assurance mechanisms, accreditations, and regulatory frameworks in order to maintain the quality and reputation of online education. The oversight is via assessment of the online programs' efficiency,

ensuring that these are compliant with national education standards, and overseeing transparency and accountability in online learning institutions.

3. **Promote Awareness and Adoption of Alternative Education:** The policymakers and educators should together work to spread the word about the merits of the alternate education models so as to encourage their adoption in post-COVID Pakistan. This entails running advocacy campaigns, providing capacity-building workshops, and setting up strategic partnerships with educational institutions, employers, and other community stakeholders to realize more on online learning platforms.
4. **Foster Collaboration and Knowledge Sharing:** The policymakers are supposed to promote partnership and knowledge sharing among education actors in order to facilitate the dissemination of good practices and experiences and develop innovative solutions for alternative education. This encompasses the setup of communication channels, meetings, and R&D partnerships which facilitates the linkage of sectors and regions.

Future Directions for Research and Practice in Alternative Education

1. **Explore Hybrid Learning Models:** Researchers and practitioners will have to investigate the merits of hybrid models of learning that comprise online and on-campus components so as to capitalize on the strength of both modes (Ansar, Ali, Khattak, Naveed, & Zeb, 2020). We will do this by creating flexible learning pathways, incorporating technology-related learning activities, and adding experiential learning into the curriculum as part of keeping engagement and learning active among the learners.
2. **Address Socio-Cultural Barriers:** Future research should explore social and cultural obstructions to the adoption of nonstandard educational models in post-COVID Pakistan and employ techniques to tackle them efficiently. The studies will include qualitative, community-based, and participatory action research initiatives to create an understanding of the cultural beliefs, attitudes, and preferences toward online learning and designing culturally appropriate intervention strategies.

3. **Enhance Digital Literacy and Skills Development:** Researchers and practitioners need to give digital literacy and skills development high importance to enable the person to develop the abilities necessary to be successful in the Digital era (Akhter & Mahmood, 2018). Among these activities are producing courses online, training programs, and certification schemes to support the development of digital literacy, critical thinking, problem-solving, and cooperation among learners from a variety of ages and backgrounds.
4. **Foster Inclusive and Sustainable Education Systems:** Research and practice in alternative education for post-COVID Pakistan need to focus on equity, inclusion, and sustainability, as these are the fundamental principles to support the accessibility and relevance of education (Ansar, Ali, Khattak, Naveed, & Zeb, 2020). This involves developing diversity, equity, and inclusion in online learning environments,

designing educational resources that are accessible and culturally responsive, and forming strategic alliances with marginalized communities to address their specific needs and desires via the co-creation of educational solutions. Therefore, the post-COVID Pakistan situation needs a multi-faceted approach taken by policymakers, teachers, researchers, and practitioners in order to promote equity, inclusivity, and innovation in alternative education (Akhter & Mahmood, 2018). Through digital infrastructure investments, implementation of quality assurance measures, promotion of the awareness and acceptance of alternate education models, as well as the development of collaboration and knowledge-sharing capacities, the stakeholders can build a more adaptable, resilient, and sustainable education system that in turn empowers individuals and communities to deal with the digital world positively.

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