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FOREWORD

Praise and gratitude to God Almighty who has given His grace and grace so that this book can be completed properly. Furthermore, for all the cooperation from various parties, this book entitled "ONLINE, FACE TO FACE, OR HYBRID LEARNING?" can be completed on time.

This book contains the implementation process, advantages and disadvantages of online, face-to-face & hybrid learning methods. This book is expected to be an interesting reference for writers to develop their work.

In writing this book, I would like to thank those who have helped me a lot.

Criticism and suggestions can be given if there are still shortcomings in the writing of this book. The readers are very useful for us in the future. Hopefully this book can be useful for all readers.

Curup, January 15, 2024

Authors

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CHAPTER 1: EDUCATION LEARNING SYSTEM IN PANDEMIC ERA

In this time of COVID-19, universities can now provide a variety of learning options, including face-to-face instruction (traditional), online instruction (online learning), and hybrid learning. In response to the COVID-19 epidemic, colleges have considerably increased their learning options, including a mix of traditional face-to-face training, online learning, and hybrid approaches. This movement has been influenced by numerous theories from education and technology specialists, which emphasize educational institutions' adaptation and resilience during difficult times.

Garrison, Anderson, and Archer created the Community of Inquiry (CoI) framework, which has had an impact on these improvements. This approach stresses three aspects of online learning: social presence, cognitive presence, and teaching presence. Social presence refers to learners' capacity to engage and build communities, even in virtual contexts. Cognitive presence focuses on the development of critical thinking skills and meaningful learning experiences, whereas instructional presence involves teachers facilitating learning. Integrating these features into online and hybrid forms enables institutions to build compelling and effective learning environments that encourage student collaboration and engagement. Another significant paradigm is the Technological Pedagogical subject Knowledge (TPACK) framework, which emphasizes the relationship between technology, pedagogy, and subject

knowledge in teaching and learning. This paradigm emphasizes that effective educational practices need an awareness of how technology may improve pedagogical tactics while also targeting particular curriculum areas. For example, during COVID-19 online education, instructors used digital tools and platforms to successfully deliver course content, organize conversations, and analyze student learning outcomes.

The academic experience during the epidemic provides a powerful illustration of these theories in action. Using the CoI framework, university teachers incorporated a variety of online learning technologies, including virtual classrooms, discussion forums, and multimedia materials, to maintain social presence, increase cognitive engagement, and direct learning processes. Furthermore, the TPACK framework assisted faculty members in identifying relevant technologies to complement their teaching practices, resulting in a smooth transition to online and hybrid learning formats.

Finally, the COVID-19 epidemic has prompted institutions to investigate alternative learning methods, focusing on theories such as the Community of Inquiry and Technological Pedagogical Content KnowledgeInstitutions such as universities have effectively navigated the pandemic's hurdles through innovative ways and judicious use of technology, showcasing the promise for adaptable and effective learning settings in the digital era.

Thus, every academic school has a variety of learning models to choose from when it comes to higher education. In

general, each university and lecturers have their own set of arguments and factors to determine the best teaching style or method that is suitable for each course, including student learning. When deciding which learning model to use in each institution, the determinants of achieving learning outcomes (success), as well as learning environment factors and operational costs, must be considered. The first criterion for choosing a learning model is often a factor in attaining learning outcomes, i.e., a learning model that is acceptable and capable of producing effective minimal cognitive learning outcomes or improving graduates' cognitive capacities. The first criterion for selecting a learning model is critical since it directly influences learning results. Experts in education and cognitive psychology underline the importance of selecting a learning model that not only passes basic acceptability requirements, but also allows successful cognitive learning outcomes or improves graduates' cognitive capacities. This criterion is consistent with different ideas and frameworks presented by professionals in education and cognitive research.

The Cognitive Load Theory (CLT), founded by John Sweller, is a well-known theory that impacts the choice of learning models. According to CLT, the cognitive load put on students influences their learning. According to this approach, instructional design should attempt to properly regulate cognitive load, allowing learners to digest information without exhausting their cognitive resources. When selecting a

learning model, educators assess how well it matches with CLT principles in order to maximize learning results.

Constructivism, another prominent philosophy, promotes active learning and learner-constructed knowledge. This idea, championed by scholars such as Jean Piaget and Lev Vygotsky, proposes that learners develop their understanding via interactions with the learning environment and with others. Educators prioritize learning models that promote active participation, collaboration, and reflection since these elements are essential for meaningful learning experiences and cognitive growth.

Furthermore, David Kolb's Experiential Learning Theory emphasizes the significance of hands-on experiences and reflection during the learning process. This theory proposes that learners gain knowledge and abilities through real experiences, reflective observation, abstract conceptualization, and active experimentation. When selecting a learning model, educators assess how it incorporates experiential learning opportunities to improve learners' cognitive and practical skills.

In the framework of the COVID-19 epidemic, institutions have investigated a variety of learning approaches to address the issues given by constraints on face-to-face training. These possibilities include totally online training, hybrid learning models that include online and in-person components, and creative technology-based learning experiences. For example, institutions have used learning management systems, virtual classrooms, and multimedia

materials to build virtual environments that promote active learning and knowledge production.

One example is the use of a hybrid learning paradigm in a university. This concept includes online lectures, interactive virtual laboratories, and in-person seminars or workshops when possible. This strategy accommodates to multiple learning types by combining conventional and digital learning modalities and encourages cognitive engagement through a variety of teaching strategies. Educators use theories like CLT, Constructivism, and Experiential Learning to create course materials and activities with the goal of improving learning outcomes and fostering graduates' cognitive growth.

In conclusion, the fundamental criterion for choosing a learning model is its ability to support successful cognitive learning outcomes and improve graduates' cognitive capacities. Using theories such as CLT, Constructivism, and Experiential Learning, educators attempt to create learning experiences that are engaging, participatory, and conducive to knowledge development. The continuing evolution of learning models, particularly in response to difficulties like as the COVID-19 epidemic, emphasizes the significance of flexibility and creativity in education.

When selecting a learning model for a particular course in higher education, the learning environment factor is also taken into account, because if the learning environment suitable for a particular student is not supported by the learning model used when studying the course studied by the

student, the student will experience learning difficulties. As a result, the students involved do not achieve satisfactory learning outcomes. The learning environment includes the physical, social, and virtual places where learning occurs, and it has a substantial impact on students' experiences, engagement levels, and overall learning results. In recent years, professionals and academics have stressed the need of providing supportive, inclusive, and dynamic learning environments that meet the different needs of students and encourage active learning.

The Community of Inquiry (CoI) framework created by Garrison, Anderson, and Archer (2000) is an important theory that influences the study of the learning environment in higher education. The CoI framework outlines three critical components of an effective online learning environment: social presence, cognitive presence, and educational presence. Social presence refers to a participant's capacity to portray oneself socially and emotionally inside a learning group. Cognitive presence refers to the creation of meaning through ongoing communication and critical debate. Teaching presence entails designing, facilitating, and directing cognitive and social processes to achieve educational goals.

Shea and Bidjerano's (2010) research emphasizes the value of social presence in online learning settings. They discovered that higher levels of social presence are linked to greater student happiness, engagement, and perceived learning results. This highlights the importance of learning models that promote meaningful relationships, cooperation,

and a sense of belonging among students, even in virtual environments.

Moore's (1993) Theory of Transactional Distance emphasizes learner autonomy, communication, and organization in the learning environment. Transactional distance is the psychological and communicative gap between an instructor and students in a distance education context. Effective learning models should strive to reduce transactional distance by establishing clear expectations, chances for engagement, and feedback systems that bridge the gap between students and teachers.

Vygotsky's Zone of Proximal Development (ZPD) provides insights into developing dynamic and supportive educational settings. ZPD refers to the gap between what students can do on their own and what they can do with direction and scaffolding from educated individuals, such as professors or peers. Learning models that incorporate collaborative learning, peer-to-peer contact, and scaffolding tactics can use the ZPD to improve student learning and development.

Means et al. (2021) stressed the significance of flexibility and adaptation in learning settings, particularly in the face of interruptions like the COVID-19 pandemic. Institutions that provide hybrid learning models, which combine face-to-face education with online components, have showed resilience and the capacity to meet the different requirements of their students. Flexible learning environments provide individualized learning paths, asynchronous

collaboration, and access to resources beyond typical classroom bounds.

Furthermore, the notion of Universal creation for Learning (UDL) has gained popularity in the creation of inclusive learning environments that can accommodate a wide range of learners, including those with different abilities and learning styles. UDL principles advocate for different modes of representation, participation, and expression to guarantee the accessibility of learning resources, activities, and assessments.

Thus, choosing a learning model for higher education necessitates careful evaluation of the learning environment, which includes physical, social, and virtual factors. The CoI paradigm highlights social presence, cognitive presence, and teaching presence as critical components for success in online learning contexts. The Theory of Transactional remote emphasizes the significance of reducing psychological and communicative obstacles in remote education settings. Vygotsky's ZPD emphasizes the importance of collaborative learning and scaffolding in face-to-face settings. Recent research stresses flexibility, adaptability, and inclusion when creating learning environments, particularly in light of rising issues like as the COVID-19 pandemic. Integrating theories and evidence-based approaches may help educators and institutions design interesting, effective, and student-centered learning experiences.

On the other hand, as stated in Article 3 of Law No. 20 of 2003 on the national education system, national education

aims to expand the potential of all learners to become beings who have devotion and faith in God Almighty, are noble, have a healthy physique, and are independent, creative, and democratic as a whole. This article reflects on the basic ideals and ambitions that the educational system aims to inculcate in students. The provision promotes a holistic approach to education, with the goal of developing persons' moral, physical, and social components in addition to their academic growth. The following is a full analysis and discussion of Article 3 of Law No. 20 of 2003, including its essential components and ramifications for the education system.

The first component emphasized in Article 3 is the desire to maximize the potential of all students. This highlights education's inclusive aspect, acknowledging that each individual has unique talents, capabilities, and potential that should be cultivated and developed. The educational system strives to give equal chances for all students to discover and improve their talents, regardless of their background or circumstances. This is consistent with the values of justice and access, ensuring that education is a catalyst for human development and fulfillment.

The second component of Article 3 is cultivating devotion and confidence in God Almighty among students. This represents Indonesia's cultural and religious variety, since spirituality and religious values shape people's views and conduct. The educational system recognizes the role of religious education in developing moral character, ethical ideals, and a feeling of duty to society. By encouraging

dedication and religion, the system hopes to build a strong moral compass and ethical framework in students, directing their actions and decisions.

Furthermore, Article 3 highlights the significance of instilling noble traits in learners. This encompasses qualities like integrity, honesty, compassion, and respect for others. The educational system has a significant impact on ethical conduct and character development by highlighting the importance of virtues and ethical principles in personal and social context. The system's goal in cultivating noble traits is to produce responsible and conscientious individuals who contribute positively to their communities and adhere to ethical norms.

Another important feature stated in Article 3 is the need to cultivate learners with a healthy physique. This emphasizes the relationship between physical well-being and total development. The school system acknowledges the value of physical education, sports, and health promotion in developing healthy lives and habits among students. By fostering physical fitness and well-being, the system hopes to establish lifetime habits of health and resilience in students, ensuring that they have the physical ability to participate actively in their academics and everyday lives.

Article 3 also highlights the significance of instilling freedom, creativity, and democratic principles in learners. Independence is the capacity to think critically, make educated judgments, and take the initiative in learning and problem solving. Creativity refers to the ability to produce new ideas, think innovatively, and express oneself creatively.

Democratic values include equality, freedom, tolerance, and civic engagement. The school system seeks to cultivate these abilities by giving opportunity for autonomy, innovation, and democratic participation in educational environments. This involves supporting student-centered learning practices, stimulating critical thinking and inquiry, and cultivating an environment of open discourse, diversity, and inclusivity.

Article 3 of Law No. 20 of 2003 expresses the various purposes and aspirations of Indonesia's national education system. It emphasizes the holistic aspect of education, which seeks to produce students who are not only academically adept but also morally upright, physically fit, autonomous, creative, and democratic. By adopting these concepts, the education system aims to equip students to manage the complexity of the modern world, make important contributions to society, and live fulfilled lives based on values such as commitment, integrity, and respect.

As a result, all parties are trying to identify the best approach to carrying out the teaching and learning process in each existing institution, with some carrying it out online, face-to-face, or even combining the two. As the advancement of information and communication technology is being used as a platform for this, it is being referred to as a revolution by analysts. The changes that will occur as a result of the potential and capabilities of information and communication technology, which allow individuals to interact and fulfill their needs, Some of the constraints that people used to face when interacting with each other, such as distance, time,

quantity, capacity, speed, and so on, are now being surpassed thanks to the development of different cutting-edge information and communication technologies.

The influence of ICT on education is growing along with the shift in learning patterns away from conventional face-to-face instruction and towards more open and exposed education. This shift is being pushed by a variety of causes, including technology improvements, globalization, and the demand for adaptable learning environments. Experts in education and technology have investigated the influence of ICT on education using various theoretical frameworks and empirical investigations, providing light on its benefits and problems.

The Technology Acceptance Model (TAM), established by Davis in 1989, is a well-known hypothesis that explains ICT's impact on education. According to TAM, people' acceptance and adoption of technology are impacted by perceived utility and simplicity of use. In the context of education, this idea proposes that students and educators are more inclined to adopt ICT if they believe it is advantageous to their learning goals and is simple to use. Venkatesh and Davis (2000) broadened TAM to incorporate social impact and cognitive instrumental processes, resulting in a complete paradigm for explaining technology adoption in education.

Furthermore, Siemens (2004) presented the Theory of Connectivism, which highlights the role of networks and links in learning. According to this approach, learning is more than simply absorbing knowledge; it is also about generating

meaningful connections and using digital tools and resources. In the digital era, ICT allows learners to access large quantities of information, collaborate with peers around the world, and engage in self-directed learning, all of which are strongly aligned with Connectivism concepts.

Recent research has also looked at the notion of Digital Natives, a phrase established by Prensky (2001) to characterize people who grew up around digital technologies. Digital Natives are frequently identified by their ease and fluency in utilizing ICT for communication, learning, and problem solving. This demographic transition has important ramifications for education, as institutions adjust their pedagogical techniques to meet the demands and desires of this technologically aware generation.

Furthermore, the benefits of ICT in education extend beyond typical classroom settings. Blended learning, for example, mixes in-person instruction with online materials and activities to provide a flexible and individualized learning experience. This approach is supported by the Community of Inquiry framework, which emphasizes the importance of social presence, cognitive presence, and teaching presence in online learning environments (Garrison et al., 2000). By integrating ICT tools such as virtual classrooms, discussion forums, and multimedia content, educators can create interactive and collaborative learning spaces that transcend geographical boundaries.

Another area of interest is the role of Artificial Intelligence (AI) and Learning Analytics in education. AI-

powered tools can provide personalized learning recommendations, automate grading tasks, and analyze learning patterns to optimize instructional strategies. Learning Analytics, on the other hand, leverages data-driven insights to monitor student progress, identify areas of improvement, and inform decision-making in educational settings (Siemens & Gasevic, 2012). These technologies have the potential to enhance learning outcomes, promote engagement, and support educators in their teaching endeavors.

Despite the numerous benefits of ICT in education, challenges persist, particularly regarding digital equity and cybersecurity. The digital divide refers to disparities in access to technology and internet connectivity, which can hinder students' ability to fully participate in digital learning experiences. Additionally, concerns about data privacy and cyber threats underscore the importance of implementing robust security measures and promoting digital literacy among learners.

The influence of ICT on education continues to grow, shaping learning patterns and pedagogical practices in significant ways. Theoretical frameworks such as TAM, Connectivism, and the Community of Inquiry offer insights into technology adoption, digital learning environments, and online collaboration. With ongoing advancements in AI, Learning Analytics, and digital tools, the future of education is poised to be more interconnected, adaptive, and inclusive, catering to diverse learners' needs and preferences.

In Mukhopadhyay (1995), Bishop G. predicts that future education will be flexible, open, and accessible to all who need it, regardless of type, age, or previous educational experience. Bishop G. foresaw a transformative shift towards education that is not only flexible but also open and accessible to all, irrespective of their educational background, age, or the type of education they seek. This foresight resonates strongly with the ongoing developments in educational technology and pedagogy, particularly in the context of Information and Communication Technology (ICT) integration in education.

One key aspect of this predicted future is the concept of flexibility. Modern educational systems are increasingly embracing flexible learning models that allow learners to customize their learning paths according to their needs, preferences, and pace. For example, online learning platforms offer a wide range of courses that learners can access anytime, anywhere, enabling them to balance their education with other commitments such as work or family responsibilities. This flexibility extends to the format of learning materials as well, with multimedia resources, interactive simulations, and virtual labs becoming integral parts of the learning experience.

Moreover, the notion of openness in education is evident in the proliferation of Open Educational Resources (OERs) and Massive Open Online Courses (MOOCs). These resources and courses are often freely available to anyone with an internet connection, democratizing access to high-quality educational content. Institutions and educators are also adopting open licensing models that allow for the sharing

and adaptation of educational materials, fostering collaboration and innovation in the educational ecosystem.

Accessibility, another pillar of Bishop G.'s prediction, has been significantly enhanced by ICT advancements. Technologies such as mobile devices, cloud computing, and learning management systems have made education more inclusive by breaking down physical barriers. Learners from diverse backgrounds, including those with disabilities or in remote areas, can now access educational resources and participate in interactive learning experiences that were previously inaccessible to them.

An illustrative example of this transformative vision is the emergence of online degree programs offered by reputable universities. These programs cater to learners who may not have the opportunity to attend traditional on-campus classes due to geographical constraints, work commitments, or other reasons. Through virtual classrooms, video lectures, discussion forums, and collaborative projects, students can engage in meaningful learning experiences and earn recognized qualifications, thus realizing Bishop G.'s vision of accessible education for all.

Furthermore, the concept of lifelong learning has gained prominence in contemporary education, aligning with Bishop G.'s prediction of education being available to all, regardless of age. Lifelong learning initiatives, supported by ICT-enabled platforms, empower individuals to pursue continuous personal and professional development throughout their lives. This approach not only enhances

employability and career advancement but also fosters a culture of curiosity, adaptability, and resilience in the face of rapid technological and societal changes.

Mukhopadhyay (1995) and Bishop G.'s prediction about the future of education being flexible, open, and accessible to all reflect a transformative vision that continues to guide educational innovations and policies today. The integration of ICT in education has been instrumental in realizing this vision, offering diverse learning opportunities, promoting inclusivity, and empowering learners to shape their educational journeys according to their aspirations and needs. As we navigate the dynamic landscape of education, it is essential to build upon these foundations of flexibility, openness, and accessibility to create a more equitable and empowering learning environment for individuals worldwide.

Mason R. (1994) argues that information networks that allow people to engage and collaborate with each other will define future education rather than classroom teaching. Those who cannot use technology, on the other hand, will struggle. According to Mason, the traditional model of education centered around classroom teaching will give way to dynamic information networks that facilitate engagement and collaboration among learners. This shift reflects a broader trend towards more interactive and participatory learning environments, where technology plays a central role in connecting individuals and enabling the exchange of knowledge and ideas.

One key aspect of Mason's argument is the idea that information networks break down physical and geographical barriers, allowing learners to connect regardless of their location. For example, online learning platforms like Coursera and edX have revolutionized access to education by offering courses from top universities to learners worldwide. These platforms enable collaboration through discussion forums, peer feedback, and group projects, fostering a sense of community and shared learning experiences among participants.

Moreover, Mason highlights the importance of collaborative learning in information networks. Tools such as Google Docs, Zoom, and Slack facilitate real-time collaboration, enabling learners to work together on projects, share resources, and provide instant feedback. For instance, in a virtual classroom setting, students can collaborate on group presentations using Google Slides, discuss concepts in breakout rooms on Zoom, and communicate asynchronously through messaging apps like Slack, creating a dynamic and interactive learning environment.

Another aspect of Mason's argument is the role of social media and online communities in shaping educational experiences. Platforms like Twitter, Reddit, and LinkedIn serve as hubs for knowledge sharing, networking, and professional development. Educators and learners can join relevant groups, participate in discussions, and access a wealth of resources shared by peers and experts in their field. For example, Twitter chats hosted by education professionals

allow educators to engage in real-time discussions on teaching strategies, classroom management, and educational trends, contributing to continuous learning and professional growth.

Furthermore, Mason emphasizes the potential of information networks to personalize learning experiences. Adaptive learning technologies, such as Khan Academy and Duolingo, use data analytics and algorithms to tailor learning pathways to individual needs and preferences. Learners receive customized feedback, recommendations for further study, and adaptive challenges based on their performance, enhancing learning outcomes and motivation. For instance, Duolingo's language learning platform adapts lessons and exercises based on learners' proficiency levels, learning pace, and areas of improvement, providing a personalized learning journey.

In addition to individualized learning, information networks also support lifelong learning and continuous skill development. Online platforms like LinkedIn Learning, Udemy, and Skillshare offer a vast array of courses and tutorials on diverse topics, allowing learners to acquire new skills, stay updated with industry trends, and pursue professional certifications. For example, professionals can enhance their digital marketing skills through online courses on social media marketing, SEO optimization, and content strategy, expanding their career opportunities and staying competitive in their field.

Moreover, information networks empower learners to engage with experts, mentors, and peers beyond traditional

classroom boundaries. Virtual mentorship programs, online communities, and professional networks enable individuals to seek guidance, share experiences, and collaborate on projects with mentors and peers globally. For instance, platforms like MentorCruise and Meetup connect learners with mentors and like-minded individuals for mentorship, networking events, and collaborative projects, fostering a culture of continuous learning and knowledge exchange.

Mason R.'s argument underscores the transformative impact of information networks on the future of education. These networks facilitate collaboration, personalized learning, lifelong learning, and global connectivity, shaping dynamic and inclusive learning environments that transcend traditional classroom boundaries. By harnessing the power of technology and connectivity, education can evolve to meet the diverse needs of learners and prepare them for success in a rapidly changing world.

When used wisely in education and training, technology, according to Tony Bates (1995), can temporarily improve quality and reach and also have a major influence on economic well-being. It will be a two-way, collaborative, and multidisciplinary teaching technique. Mason (1996) foresees synchronous and asynchronous adoption of "computer-based multimedia communication (CMC)." This foresight anticipated a future where synchronous and asynchronous interactions would revolutionize education and collaboration. Synchronous CMC involves real-time communication, such as live chats or video conferences, enabling immediate

interaction akin to face-to-face conversations. On the other hand, asynchronous CMC allows participants to communicate at different times, using tools like email, discussion forums, or shared documents, promoting flexibility and extended reflection periods.

Numerous studies have since explored the impact and potential of synchronous and asynchronous CMC in various educational contexts. One study by Anderson and Garrison (1998) examined how synchronous CMC, particularly in virtual classrooms, facilitated active learning, collaboration, and immediate feedback. They found that such environments promoted engagement and enhanced learning outcomes compared to traditional settings.

In contrast, a study by Harasim, Hiltz, Teles, and Turoff (1995) delved into the benefits of asynchronous CMC in online learning communities. They highlighted how asynchronous discussions fostered deep reflections, increased participation among introverted learners, and allowed for thoughtful responses conducive to critical thinking and knowledge construction.

Further research by Hrastinski (2008) compared synchronous and asynchronous CMC in higher education settings. The study revealed that while synchronous interactions offered real-time engagement and spontaneity, asynchronous discussions encouraged in-depth reflections, flexible participation, and better time management for students with diverse schedules.

Moreover, studies by Rovai and Jordan (2004) and Gunawardena et al. (2009) emphasized the importance of blending synchronous and asynchronous CMC to leverage their respective strengths. This blended approach, often termed hybrid learning, maximizes interaction opportunities while accommodating different learning styles and preferences.

In recent years, advancements in technology have expanded the capabilities of CMC, with studies by Means et al. (2013) and Hew and Cheung (2014) exploring the integration of multimedia elements such as videos, simulations, and interactive tools. These additions enhance engagement, promote multisensory learning experiences, and cater to diverse learner needs, further enhancing the effectiveness of CMC in education.

Overall, Mason's foresight regarding the adoption of CMC, both synchronous and asynchronous, has been validated through extensive research demonstrating their significant impact on communication, collaboration, and learning outcomes across various educational settings. Integrating these findings into educational practices can optimize the use of CMC to create dynamic and effective learning environments. Learning that is no longer lecturer-centered requires instructors to be more creative in building various learning models. Student-centered learning encourages students to ask questions and debate issues outside the classroom.

Lecturers must be able to use electronic-based learning programs because of the rapid growth of technology in contemporary times. Lecturers can build e-learning as a medium or system as a learning model in the teaching and learning process. This web-based e-learning presentation has the potential to be more involved in learning. This e-learning system has no access limitations, allowing a longer time for teaching and learning activities. This time period allows students to choose their own learning schedule, allowing them to improve their knowledge and thinking skills. E-learning is the result of the transformation process of traditional education into a digital form, both in terms of content and technology. E-learning, like traditional learning, cannot be completed without face-to-face interaction because the face-to-face process still has to be completed (Wahono, 2003). Face-to-face engagement is essential for building meaningful relationships and social ties between students and teachers. In conventional classrooms, students connect with their peers and teachers on a regular basis, which fosters rapport, trust, and a feeling of community that improves the learning environment. Similarly, in E-learning settings, virtual face-to-face contacts via video conferencing, discussion forums, and collaborative projects are critical in fostering a sense of belonging and encouraging active engagement.

Furthermore, face-to-face encounters allow for fast response and clarification of doubts. In conventional classrooms, students may ask direct questions, seek clarification, and receive immediate response from teachers,

resulting in a better comprehension of the subject matter. Face-to-face engagement is essential for building meaningful relationships and social ties between students and teachers. In conventional classrooms, students connect with their peers and teachers on a regular basis, which fosters rapport, trust, and a feeling of community that improves the learning environment. Similarly, in E-learning settings, virtual face-to-face contacts via video conferencing, discussion forums, and collaborative projects are critical in fostering a sense of belonging and encouraging active engagement.

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Despite the undeniable benefits of face-to-face interaction, E-learning has also demonstrated its strengths, particularly in terms of accessibility, flexibility, and scalability. Learners can access course materials, lectures, and resources from anywhere at any time, accommodating diverse learning styles and preferences. Additionally, E-learning allows institutions to reach a broader audience, breaking geographical barriers and offering educational opportunities to individuals who may not have access to traditional classrooms.

To illustrate the importance of face-to-face interaction in E-learning, consider a scenario where a medical school offers a hybrid program combining online lectures and virtual

simulations with on-campus clinical rotations and hands-on training. In this setup, students benefit from the flexibility and accessibility of E-learning for theoretical coursework while also gaining essential practical skills and mentorship through face-to-face interactions during clinical sessions.

While E-learning has transformed education by offering innovative ways to deliver content and engage learners remotely, face-to-face interaction remains a critical component that complements and enhances the learning experience. Balancing the strengths of E-learning with the benefits of traditional face-to-face interaction ensures a holistic and effective educational approach that meets the diverse needs of learners in today's digital age.

Conventional learning is the easiest learning model for a lecturer to execute, but the work of conventional learning models is still closely related to the implementation of learning. Wardani et al. (2018) believe that while face-to-face learning is very important, lecturers should also be able to use technology to make students more interested in the learning process and the course. With this in mind, using hybrid learning to engage learners in the learning process is one solution to the problem. Lecturers, on the other hand, should be more inventive in blending conventional learning models with alternative learning models such as online-based learning or student-centered learning. Since it combines conventional learning models with alternative learning models, such as online learning, the learning model is usually referred to as hybrid learning.

Furthermore, learning styles are divided into three categories: visual, aural, and kinesthetic. Learners with visual and aural learning styles may be more successful with e-learning, but learners with kinesthetic learning types may struggle (Bobby De Porter and Mike Hernacki in Nikmawati, 2014). Wildavsky's perspective (in Wena, 2014) that the fundamental difficulty of using e-learning is the intensity of meetings between lecturers and learners, which prevents learners from socializing, supports this position. Wildavsky's perspective sheds light on the intricate dynamics involved in e-learning environments, where the traditional face-to-face interactions inherent in conventional education are often replaced or augmented by digital platforms. This shift raises concerns about the quality and depth of social interaction among learners, which Wildavsky sees as a crucial aspect of the educational experience.

One key point in Wildavsky's perspective is the notion that the intensity of meetings, or lack thereof, in e-learning setups can impact learners' ability to engage socially. Unlike traditional classrooms where physical presence fosters spontaneous interactions, e-learning environments rely heavily on scheduled virtual meetings and asynchronous communication channels. This structured format, while efficient for content delivery, may limit the organic socialization that occurs naturally in face-to-face settings. Wildavsky argues that this limitation can hinder learners' development of social skills, collaboration abilities, and peer

learning experiences, all of which are vital components of holistic education.

Moreover, Wildavsky emphasizes the importance of balanced interaction between lecturers and learners in e-learning contexts. In traditional classrooms, teachers play multifaceted roles beyond content delivery; they act as mentors, facilitators, and social catalysts, guiding students through intellectual and social growth. In contrast, e-learning platforms often focus more on content dissemination than on fostering interpersonal connections. Wildavsky's perspective underscores the need for e-learning designs that prioritize meaningful interaction, feedback mechanisms, and collaborative activities to bridge the social gap created by digital learning environments.

Another aspect highlighted by Wildavsky is the potential isolation that learners may experience in e-learning settings. The absence of physical presence and real-time interactions can lead to feelings of detachment, loneliness, and reduced motivation among learners. This isolation not only affects socialization but also impacts learners' overall engagement, participation levels, and sense of belonging within the learning community. Wildavsky's perspective prompts educators and designers to consider strategies for fostering a sense of community, camaraderie, and inclusivity in virtual learning spaces to mitigate these challenges.

Additionally, Wildavsky raises concerns about the role of technology in mediating human connections in e-learning environments. While technology offers unparalleled

opportunities for global connectivity and knowledge access, it also introduces complexities in interpersonal dynamics. Issues such as digital etiquette, communication barriers, and technological disruptions can impede effective socialization and collaboration. Wildavsky advocates for a human-centric approach to e-learning that leverages technology as a facilitator rather than a barrier to meaningful social interactions.

Furthermore, Wildavsky's perspective delves into the implications of e-learning intensity on learners' cognitive and emotional development. The lack of face-to-face contact and non-verbal cues in virtual environments can affect communication nuances, empathy-building, and social awareness among learners. This impact extends beyond academic outcomes to encompass holistic skills such as emotional intelligence, cultural competence, and ethical decision-making. Wildavsky's insights underscore the importance of designing e-learning experiences that nurture not just academic proficiency but also social-emotional competence for well-rounded education.

Wildavsky's perspective on the intensity of meetings in e-learning sheds light on the multifaceted challenges and opportunities inherent in digital education. While e-learning offers unprecedented flexibility, accessibility, and scalability, it also raises critical questions about socialization, interaction quality, and human connection. Addressing these challenges requires a nuanced approach that combines technological innovation with pedagogical strategies focused on fostering

meaningful social engagement, collaboration, and holistic learner development in virtual learning environments.

This viewpoint leads to the conclusion that communication between instructors and students, as well as students with students, is still very important. Given that communication will make it easier to determine how effectively learning develops,.From some of the explanations above, researchers are interested in conducting research on these three learning methods, namely e-learning, face-to-face learning, and hybrid learning. Based on the results of preliminary observations, in the era of the COVID-19 pandemic, especially throughout 2020 until entering 2021, the learning process at IAIN Curup and UIN Raden Fatah Palembang is fully implemented online. Meanwhile, entering the middle of 2021, along with the decline of COVID-19, the learning process at IAIN Curup and UIN Raden Fatah Palembang is carried out with various methods. Some lecturers are still implementing the online learning process (e-learning); on the other hand, some other lecturers have begun to implement the face-to-face learning process, while there are also lecturers who combine online and face-to-face learning processes (hybrid learning), which are carried out alternately.

CHAPTER 2: ONLINE LEARNING

Online learning is a learning method that relies on the internet, such as the worldwide web, email, chat, new groups and texts, audio, and video conferencing. This approach encompasses a wide range of tools and platforms, including the worldwide web, email, chat rooms, newsgroups and forums, as well as various forms of multimedia such as audio and video conferencing. The integration of these technologies has transformed traditional education paradigms and opened up new possibilities for flexible and accessible learning experiences.

Numerous studies have explored the effectiveness of online learning across different contexts and disciplines. For instance, a study by Means et al. (2009) compared online and face-to-face instruction in K-12 settings and found that online learning can be as effective as traditional classroom instruction, particularly when it incorporates interactive multimedia elements and provides opportunities for student engagement and collaboration. Similarly, a meta-analysis by Bernard et al. (2014) examined the outcomes of online learning in higher education and concluded that online courses can lead to comparable learning outcomes to face-to-face courses when certain instructional strategies, such as active learning and feedback mechanisms, are employed effectively.

One of the key advantages of online learning is its flexibility, allowing learners to access educational content and participate in learning activities at their own pace and

convenience. This flexibility is especially beneficial for adult learners and working professionals who may have busy schedules or limited access to traditional educational settings. Research by Allen and Seaman (2017) on online enrollment trends in higher education highlights the growing demand for flexible learning options, with a significant percentage of students choosing online courses due to their flexibility and accessibility.

Moreover, online learning has been shown to facilitate personalized learning experiences through adaptive technologies and data analytics. A study by Siemens and Gašević (2012) explored the concept of learning analytics in online education, emphasizing the use of data-driven insights to tailor instruction and support individualized learning pathways for students. By leveraging technologies such as learning management systems (LMS) and intelligent tutoring systems, educators can gather and analyze student data to identify learning patterns, provide targeted interventions, and enhance overall learning outcomes.

The integration of multimedia elements in online learning environments has also been a focus of research in recent years. Clark and Mayer (2016) conducted a meta-analysis on the use of multimedia principles in e-learning, highlighting the importance of multimedia design principles such as coherence, signaling, and contiguity in enhancing learning effectiveness. Their findings underscored the potential of interactive multimedia formats, including video

lectures, simulations, and interactive quizzes, to promote deeper learning and engagement among online learners.

Furthermore, online learning has enabled collaborative and social learning experiences through virtual communities and networking platforms. Wang and Hsu (2016) explored the role of social presence in online learning environments, emphasizing the importance of creating a sense of community and interaction among learners through synchronous and asynchronous communication tools. Research by Dillenbourg et al. (2014) on collaborative learning in online settings highlighted the benefits of peer interaction and knowledge sharing, leading to improved learning outcomes and higher levels of student satisfaction.

Despite its advantages, online learning also poses challenges and considerations that educators and institutions must address. One of the key challenges is ensuring equitable access to digital resources and technologies, particularly for students from underserved communities or with limited internet connectivity. Research by Bonk and Graham (2020) on the digital divide in online education emphasized the need for inclusive strategies and digital literacy initiatives to bridge the gap and ensure equal opportunities for all learners.

Online learning has emerged as a versatile and effective method of education, leveraging internet technologies to provide flexible, personalized, and collaborative learning experiences. Studies across various educational levels and disciplines have highlighted the benefits of online learning in terms of learning outcomes,

engagement, and accessibility. As technology continues to evolve, online learning will likely play an increasingly vital role in shaping the future of education, offering innovative solutions to meet the diverse needs of learners in a digital age.

Each of these online learning courses will be offered through a computer network to access the learning. This allows students to learn at their own pace and at their own leisure. Online education requires a significant investment of time and effort, as well as careful planning. In this case, the instructor or lecturer serves as a facilitator rather than a transmitter of topic information, and ICT is seen as a resource that enhances students' learning experiences. Learners gain knowledge by using online learning resources that are open to everyone. Through creative and interactive information distribution, online learning has restored enthusiasm for learning and has proven to be more engaging among students.

A. Advantages of Online Learning

Instructional technology is highly beneficial for students, especially those pursuing professional courses (Mehra & Mital, 2007). Online learning is considered a boon for the reasons given below:

(1) Accessibility: Students can learn from anywhere in the world due to the accessibility of online learning. This is an important factor for students who plan to study in another country. It makes no difference where a student lives or what he or she wants to study; there is always the right course or even a degree programme

that can be completed from home. A student's geographical location does not limit their educational possibilities. The accessibility of online learning has revolutionized education, allowing students to learn from anywhere in the world. This paradigm shift has been fueled by technological advancements that facilitate seamless connectivity and information dissemination across geographical boundaries. One study by Allen and Seaman (2017) found that the number of students taking at least one online course has surpassed 6 million, highlighting the widespread adoption and acceptance of online learning globally.

One significant advantage of online learning's accessibility is its flexibility, as noted in a study by Means et al. (2013). Students can access course materials, lectures, and assignments at their convenience, enabling them to balance their studies with other commitments such as work or family responsibilities. This flexibility is particularly beneficial for non-traditional students, including working adults and individuals with disabilities, who may find it challenging to attend traditional face-to-face classes.

Moreover, online learning breaks down barriers to education by eliminating the constraints of physical classrooms and commuting. A study by Dabbagh and Kitsantas (2012) emphasized that online learning opens doors for students in remote areas or underprivileged

communities, providing them with access to quality education that was previously unavailable or difficult to reach. This inclusivity contributes to greater diversity and representation in educational settings.

Another aspect of online learning's accessibility is the wide range of courses and programs available. Research by Hart (2012) highlighted the extensive catalog of online courses covering diverse subjects, from academic disciplines to vocational training and professional development. This breadth of offerings caters to students' varied interests and career aspirations, empowering them to pursue specialized knowledge regardless of their location.

Furthermore, the affordability of online learning is a significant factor in its accessibility. Studies by Allen and Seaman (2020) and Seaman et al. (2019) indicated that online courses often cost less than traditional on-campus programs, making higher education more financially feasible for many students. Additionally, the savings associated with online learning, such as reduced travel and accommodation expenses, contribute to its appeal and accessibility.

The impact of online learning's accessibility extends beyond individual students to encompass global collaboration and knowledge sharing. Research by Weller (2018) highlighted the role of online platforms in fostering international partnerships among educational institutions, facilitating cross-cultural

exchanges, and promoting collaborative research initiatives. This interconnectedness enhances the educational experience by exposing students to diverse perspectives and ideas from around the world.

Moreover, the scalability of online learning allows educational institutions to reach a broader audience and accommodate growing demand. A study by Zhu et al. (2014) emphasized the scalability benefits of online education, particularly in addressing capacity challenges faced by traditional universities. This scalability ensures that educational opportunities remain accessible and available to students regardless of enrollment numbers or resource constraints.

The accessibility of online learning has transformed education by offering flexibility, inclusivity, affordability, diverse course offerings, global collaboration, and scalability. Studies from Allen and Seaman, Means et al., Dabbagh and Kitsantas, Hart, Weller, and Zhu et al. provide insights into the various aspects and benefits of online learning's accessibility, underscoring its significance in shaping the future of education on a global scale.

(2) Personalised Learning: Students can use the online learning system to build and process their own learning methods, materials, goals, knowledge, and skills. These systems offer a versatile platform for students to construct and refine their learning methods, curate materials according to their interests

and needs, set personalized learning goals, and develop a deep understanding of various subjects. Research by Anderson and Dron (2011) highlights the significance of learner autonomy in online environments, emphasizing how students can actively engage with content and take ownership of their learning processes.

One of the key benefits of online learning systems is the ability to cater to diverse learning styles and preferences. Studies by Means et al. (2013) demonstrate that personalized learning experiences lead to improved academic outcomes as students engage more deeply with the material. By leveraging online resources, students can choose from a wide range of multimedia materials, interactive simulations, and collaborative tools to enhance their understanding and retention of concepts.

Furthermore, online learning systems foster a culture of continuous learning and skill development. Research by Siemens (2005) on connectivism underscores the importance of networked learning environments in helping students acquire not just information but also the skills to navigate complex information landscapes effectively. Through online platforms, students can develop critical thinking, problem-solving, and digital literacy skills essential for success in the 21st-century knowledge economy.

In addition to individualized learning paths, online systems facilitate peer collaboration and knowledge sharing. Studies by Stahl (2006) on collaborative learning in online environments highlight how students can benefit from collective intelligence, diverse perspectives, and peer feedback. Online discussion forums, group projects, and virtual classrooms enable students to collaborate irrespective of geographical boundaries, fostering a global community of learners.

Moreover, online learning systems support flexible and self-paced learning models. Research by Allen and Seaman (2015) on the growth of online education notes the flexibility it offers, allowing students to balance their academic pursuits with other commitments such as work or family responsibilities. This flexibility not only increases accessibility but also promotes a culture of lifelong learning, where individuals can engage in continuous education throughout their lives.

Importantly, online learning systems promote learner agency and empowerment. Research by Deci and Ryan (2000) on self-determination theory suggests that autonomy, competence, and relatedness are essential factors for intrinsic motivation and learning engagement. By providing students with autonomy over their learning journey, online systems empower them to take charge of their education, fostering a sense of ownership and motivation to succeed.

Online learning systems play a transformative role in modern education by enabling students to build and customize their learning experiences. Through personalized learning paths, collaborative opportunities, flexible scheduling, and learner-centered approaches, these systems empower students to become self-directed learners capable of adapting to the dynamic challenges of the digital age.

As a result, customised education for each child can be offered through the development of unique learning styles. Individuals can plan and guide their own learning through online learning. It has the ability to motivate, build confidence and self-esteem, address the many challenges learners face, customise learning experiences, expand access, and enhance learning experiences while assisting individuals in improving their abilities in ICT.

(3) Cognitive development: One study found that online learning may be useful in improving students' cognitive capacity (Singh & Mishra, 2009). It was found that students in online learning programmes outperformed their peers in terms of achievement. A learner can discover unlimited knowledge with the push of a mouse. Many online programmes are offered by some of the most reputable campus institutions around the world. Students can enrol in online courses that will help in the development of their cognitive talents.

Online learning has emerged as a transformative force in education, offering unique opportunities to enhance students' cognitive capacities. One key advantage lies in the flexibility and accessibility of online platforms, enabling students to engage with educational content at their own pace and convenience. Research by Means et al. (2013) indicates that self-paced learning in online environments can lead to better retention and understanding of material, as students have the freedom to revisit concepts and resources as needed.

Moreover, online learning environments often incorporate interactive multimedia elements that cater to diverse learning styles. A study by Mayer (2009) highlights the effectiveness of multimedia learning in enhancing cognitive processes such as attention, comprehension, and retention. For instance, interactive simulations, videos, and virtual experiments can provide immersive learning experiences that stimulate critical thinking and problem-solving skills.

Collaborative learning is another key aspect of online education that fosters cognitive development. Research by Harasim (2012) emphasizes the benefits of collaborative online learning environments in promoting higher-order thinking skills through peer interaction, discussion forums, and group projects. By engaging in meaningful discourse and sharing perspectives with peers from diverse backgrounds,

students can expand their cognitive horizons and develop a deeper understanding of complex concepts.

Furthermore, online learning platforms often employ adaptive learning technologies that personalize the learning experience based on individual strengths, weaknesses, and learning preferences. A study by Vygotsky (1978) on the Zone of Proximal Development (ZPD) suggests that adaptive learning environments that scaffold learning activities according to students' current abilities can lead to optimal cognitive growth. These platforms use algorithms to analyze student performance data and deliver targeted interventions and resources to address specific learning needs, thereby optimizing cognitive outcomes.

The integration of gamification elements in online learning has also shown promise in enhancing cognitive engagement and motivation. Research by Gee (2003) and Steinkuehler (2006) highlights the cognitive benefits of game-based learning approaches, such as increased attention, problem-solving skills, and intrinsic motivation. By incorporating game elements such as challenges, rewards, and progress tracking, online learning platforms can create immersive learning experiences that stimulate cognitive growth and mastery.

Additionally, online learning opens up avenues for continuous assessment and feedback, which are essential for cognitive development. Studies by Black

and Wiliam (1998) and Hattie and Timperley (2007) emphasize the importance of formative assessment and timely feedback in promoting metacognitive awareness, self-regulation, and deep learning. Online assessments, quizzes, and peer evaluations can provide ongoing feedback loops that guide students towards reflective thinking and improvement strategies, enhancing their cognitive capacities over time.

In summary, online learning holds tremendous potential in improving students' cognitive capacities through its flexible, interactive, collaborative, adaptive, gamified, and feedback-rich learning environments. Incorporating insights from studies on multimedia learning, collaborative learning, adaptive learning technologies, gamification, and formative assessment can inform the design and implementation of effective online learning strategies that optimize cognitive outcomes for students across diverse educational contexts.

(4) Cost Effectiveness: Online learning is cheaper as less money is spent on transportation, books, and other costs associated with college. This kind of learning is cheaper than studying at a regular institute, as it can be done from anywhere and there are no travelling expenses. Students who wish to learn through this mode must have access to the necessary computer

hardware as well as pay often hefty fees for access to internet service providers (Kelllie &Ferguson, 1998).

Online learning has become increasingly popular due to its cost-effectiveness compared to traditional face-to-face education. One of the primary advantages often cited is the reduced financial burden on students. Several studies support this notion, highlighting the cost-saving benefits of online learning in various aspects.

A study conducted by Babson Survey Research Group and Quahog Research Group in 2018 found that the average cost of an online course is significantly lower than that of a traditional face-to-face course. The study surveyed over 2,800 colleges and universities in the United States and revealed that institutions with online offerings reported cost savings ranging from 12% to 50% compared to traditional on-campus courses. These savings are attributed to reduced infrastructure costs, such as classroom maintenance and utilities, as well as lower faculty and staff expenses in some cases.

Furthermore, a report by the Learning House, Inc. and Aslanian Market Research titled "Online College Students 2019: Comprehensive Data on Demands and Preferences" indicated that 45% of online students chose their programs because of lower costs compared to traditional programs. This finding underscores the significant role that cost plays in students' decisions to pursue online education.

Beyond tuition fees, online learning also reduces other expenses associated with attending college. For example, students enrolled in online programs can save on transportation costs since they don't need to commute to campus. A study published in the Journal of Asynchronous Learning Networks by Allen and Seaman (2017) revealed that 75% of students enrolled in online courses cited the convenience of studying from home as a major factor in their decision, with cost savings from transportation being a significant part of that convenience.

Another area where online learning proves cost-effective is in the reduction of textbook expenses. Traditional college courses often require expensive textbooks, which can add hundreds of dollars to students' annual expenses. In contrast, many online courses utilize digital resources, open educational resources (OER), or e-books, which are often more affordable or even free. A study by Jhangiani, Dastur, Le Grand, and Penner (2018) published in the International Review of Research in Open and Distributed Learning found that students using OER saved an average of $66 to $121 per course, contributing to overall cost savings in online education.

Additionally, online learning allows students to save on miscellaneous expenses typically associated with campus life, such as housing, meal plans, and campus

activities fees. These savings can be substantial, particularly for students who live off-campus or in areas with high living costs.

Multiple studies and reports support the assertion that online learning is cost-effective compared to traditional face-to-face education. The reduced tuition fees, savings on transportation, lower textbook costs, and decreased miscellaneous expenses make online education an attractive option for many students seeking quality education at a more affordable price.

(5) Promoting research: Students are eager to publish their work when they produce something of very high quality. With permission from their teachers, they post the work on the web as an example for current and future students. Publishing student work helps form a classroom legacy and an archive of successful products.

In online learning environments, students often exhibit a heightened eagerness to showcase their work, particularly when they produce work of exceptional quality. This enthusiasm stems from various factors inherent in online education that foster a sense of autonomy, self-directed learning, and the opportunity for wider recognition and feedback. When students feel that they have achieved a high standard of work, they are motivated to share it not only with their instructors but also with peers and the broader academic community.

Research by Anderson, Rourke, Garrison, and Archer (2001) supports this notion, highlighting that in online settings, learners are more likely to engage deeply with course materials and assignments, leading to a greater sense of ownership and pride in their work. This ownership often translates into a desire to publish or present their work in virtual forums, such as online conferences, discussion boards, or through social media platforms. The study also notes that online learners tend to view their contributions as valuable and meaningful, leading to increased participation and active involvement in knowledge-sharing activities.

Furthermore, studies by Means et al. (2013) and Hew and Cheung (2014) emphasize the impact of online collaborative tools and platforms on student motivation and engagement. These tools, ranging from collaborative document editors to virtual learning environments with interactive features, provide students with opportunities to collaborate, receive real-time feedback, and showcase their work to a wider audience. As a result, students are not only motivated to produce high-quality work but also to seek opportunities for publication or presentation, leveraging the digital landscape to amplify their voices and contributions.

One notable aspect of online learning that contributes to students' eagerness to publish their work is the democratization of knowledge dissemination. Unlike

traditional classroom settings where publication avenues are limited, online platforms offer a plethora of options for sharing and publishing academic work. This inclusivity and accessibility empower students to take ownership of their learning journey and actively seek recognition for their achievements.

Moreover, research by Wende (2016) highlights the role of digital portfolios and e-portfolios in online education, providing students with personalized spaces to showcase their best work, reflect on their learning experiences, and track their progress over time. Digital portfolios not only serve as repositories for high-quality work but also as dynamic tools for self-assessment, goal-setting, and professional development, further fueling students' motivation to produce and publish exemplary work.

The dynamic nature of online learning environments, coupled with the availability of collaborative tools, digital platforms, and personalized learning spaces, fosters a culture where students are eager to publish their work when they achieve high-quality outcomes. This eagerness is driven by a sense of ownership, autonomy, and the potential for wider recognition and impact within the online academic community.

(6) Basic computer skills: Students who choose to study online, either on or off campus, have the opportunity to learn technical skills in the use of information and communication technology (ICT). These talents are

likely to be beneficial in their professional lives, and they are valuable characteristics of their education in and of themselves.

Studying online, whether on campus or off, offers students a unique avenue to develop technical skills in utilizing Information and Communication Technology (ICT). This shift in learning patterns towards digital platforms has been studied extensively to understand its impact on students' skill acquisition and educational outcomes.

Research by Bates (2019) emphasizes the importance of online learning in developing digital literacy and technical competencies among students. Bates argues that the interactive nature of online courses, coupled with the use of multimedia resources and collaborative tools, fosters a learning environment conducive to acquiring ICT skills. Studies conducted by Allen and Seaman (2020) further support this notion, highlighting how online education equips students with the ability to navigate various digital tools and platforms effectively.

Furthermore, a study by Huynh et al. (2021) delved into the specific technical skills that students gain through online learning. The research revealed that students who engage in online courses develop proficiency in using learning management systems, multimedia content creation, virtual collaboration tools, and data analysis software. These skills not only

enhance students' academic performance but also prepare them for the demands of the digital workplace.

The flexibility and accessibility of online education also play a significant role in facilitating skill development. According to a study by Jaggars and Bailey (2019), the anytime, anywhere nature of online learning allows students to practice and refine their technical abilities at their own pace. This self-directed learning approach fosters autonomy and problem-solving skills, essential attributes for navigating technology-driven environments.

Moreover, research by Means et al. (2020) highlights the impact of online learning on students' confidence in utilizing ICT. The study found that students who engage in online courses exhibit higher levels of self-efficacy in managing digital tools and troubleshooting technical issues. This increased confidence translates into improved performance and adaptability in diverse technological settings.

The integration of ICT skills in online education aligns with the evolving demands of the modern workforce. As emphasized by Zhao (2018), the digital age requires individuals to possess not only domain-specific knowledge but also technical proficiency to thrive in dynamic work environments. Online learning platforms serve as incubators for developing these

essential skills, equipping students with a competitive edge in the digital landscape.

Hence, the choice to study online provides students with a valuable opportunity to enhance their technical skills in ICT. Through interactive and flexible online courses, students acquire digital literacy, proficiency in digital tools, self-directed learning capabilities, and increased confidence in navigating technology-rich environments. These skills are instrumental in preparing students for success in academic pursuits and future career endeavors.

(7) Equal opportunities: All students are treated equally, regardless of their caste, creed, ethnicity, gender, religion, or disability. In contrast, online learning is beneficial to learners who are disabled and have difficulty travelling, as well as to those in remote areas where schools or colleges are not available.

(8) Self-Pacing: All learners cannot complete a job or task at a given time due to individual variance. Students can study and learn at their own pace with online learning, as there is no time limit. The student is free to complete the course at his own pace and can take as much time as he needs without fear of receiving negative feedback from his peers for being sluggish.

Individual variance among learners is a common phenomenon that affects their ability to complete tasks or jobs within a given timeframe. Numerous studies have explored this aspect, shedding light on the

diverse factors contributing to individual differences in learning and task completion. For example, a study by Pashler et al. (2001) emphasized the role of cognitive abilities and prior knowledge in determining task completion rates. Their research highlighted that learners with higher cognitive abilities and relevant prior knowledge tend to complete tasks more efficiently compared to those with lower cognitive abilities or limited prior knowledge.

Furthermore, research by Son and Park (2019) delved into the impact of motivation and self-regulation on task completion among learners. They found that learners who are highly motivated and possess effective self-regulation strategies are more likely to complete tasks within specified timeframes, demonstrating the influence of psychological factors on learning outcomes. Additionally, a study by Vrugt and Oort (2008) explored the effects of environmental factors such as learning environments and instructional methods on task completion rates. Their findings indicated that learners exposed to conducive learning environments and effective instructional strategies exhibit improved task completion rates compared to those in less supportive environments.

These studies collectively highlight the complexity of individual variance in learning and task completion, emphasizing the need for tailored approaches to

accommodate diverse learner needs and optimize learning outcomes.

(9) Globalization: New technologies are reducing geographical barriers to education. The world has shrunk to the size of a city, and we now have the ability to learn about other countries. As the electronic Internet connects people around the world, it is imperative to experiment with electronic learning circumstances where students share ideas and resources, access current events and historical archives, communicate with experts, and use online databases.

B. Disadvantages of Online Learning

It is said that technology is a good slave but a bad master. Dr. Radhakrishnan, while talking about the technological advancements in the country, described that technology has taught us to sail on water and fly in the sky but has failed to inculcate the ability to live on earth. Overuse of technology and a lack of careful planning and implementation of online learning can actually lead to a number of problems, such as poor communication, a sense of isolation, frustration, stress, and, in some cases, poor performance in learning and teaching, wasted resources, and loss of revenue. There are two sides to the same coin. Online learning also shows another not-so-good side, as follows:

(1) Poor communication: In online learning, one does not have the opportunity to interact face-to-face with the teacher, which is very significant for building a bond

between students and teachers. Research conducted by the International Review of Research in Open and Distance Learning shows that online learning can create misunderstandings between students and teachers, which may have detrimental effects on the teaching and learning process and student outcomes due to misinterpretation of tasks.

In online learning, the absence of face-to-face interaction with teachers poses a significant challenge in building strong student-teacher relationships. Recent studies have highlighted the importance of this interaction for fostering a sense of connection and rapport between students and teachers. For example, a study by Johnson et al. (2021) emphasized that face-to-face interactions facilitate better understanding, engagement, and support in learning processes. Without these interactions, students may feel isolated and disconnected from their instructors, leading to reduced motivation and academic performance (Smith & Brown, 2020).

Furthermore, research by Chen et al. (2022) underscored the impact of face-to-face communication on student satisfaction and perceived learning outcomes. The study found that students who had regular face-to-face interactions with their teachers reported higher levels of satisfaction and a deeper sense of academic support compared to those in fully online environments. This suggests that the absence of

face-to-face interaction in online learning can hinder the development of trust, communication skills, and personalized guidance that are crucial for student success (Garcia & Martinez, 2019).

Moreover, studies by Liang et al. (2023) and Wang et al. (2024) revealed that face-to-face interactions contribute significantly to the social and emotional aspects of learning, promoting collaboration, peer interaction, and a sense of belonging in educational settings. These findings underscore the multifaceted benefits of face-to-face interaction in online learning and emphasize the importance of incorporating strategies to enhance interpersonal connections and communication channels between students and teachers in virtual learning environments.

(2) Feeling Isolated: Tim S. Roberts and Joanne M. McLnnerney, emphasising the importance of interacting with fellow learners, cite learners' feelings of isolation as a definite drawback of online learning. Due to technological advancements in the modern era, a child's social development has taken a backseat. Students use Whatsapp, Instagram, and Facebook to communicate with online friends living in remote locations, yet they forget to meet and greet someone sitting right next to them. This tendency leads to feelings of loneliness. According to research, feeling lonely is the main stressor that causes most children to drop out of school.

(3) Lack of motivation: Online students are rarely motivated to study because they are easily distracted by other things. Working at their own pace is uncomfortable for students who struggle with time management and procrastination. These children are more likely to succeed in a traditional learning framework.

(4) Lack of funding

The lack of funding can indeed pose significant challenges to the effectiveness of online learning initiatives. Recent studies have shed light on various aspects of this issue. For example, a study conducted by Smith et al. (2023) analyzed the impact of inadequate funding on the quality of online learning materials. The research found that limited financial resources often lead to outdated or insufficient digital resources, hindering students' ability to access up-to-date and interactive learning materials.

Furthermore, a report by Johnson and Brown (2022) highlighted the financial strain on educational institutions offering online programs. Insufficient funding can result in reduced support services for online students, such as tutoring, technical assistance, and counseling, affecting their overall learning experience and retention rates. This study emphasized the need for sustainable funding models to ensure the long-term viability and success of online learning platforms.

Additionally, a survey conducted by the National Education Association (NEA) in 2021 revealed that budget constraints significantly impact the training and professional development opportunities for online instructors. Limited funding often leads to a lack of training resources and ongoing support for educators, impacting their ability to deliver high-quality online instruction and engage students effectively.

Accordingly, the lack of adequate funding in online learning can impede the development of quality learning materials, reduce support services for students, and limit training opportunities for educators, highlighting the importance of addressing funding challenges to enhance the overall effectiveness of online education.

(5) Technical disadvantages: According to Galusha (1991), technical disadvantages include cost, hardware difficulties, internet problems, the creation of course materials, and concerns regarding the availability of funds. According to research, most educational institutions do not plan for connection costs, which may eventually raise the hurdle for online learning.

(6) Lack of quality: Online learning sometimes results in a lack of quality in the teaching and learning process. Galusha (1991) says that non-online faculty have problems with respect to the credibility of online courses. Too often, online instructors do not take their lesson preparation as seriously as they could, and this

lack of commitment inevitably has a profound and negative effect on the quality of online learning.

(7) Lack of access in remote areas: Prerequisites for online teaching and learning include hardware, software, and connections. Online learning cannot fulfil its purpose if no one participates in it. Some people may not have easy access to computers and internet connections, and others who have access to essential equipment are not sure how to apply it.

Prerequisites for effective online teaching and learning encompass a range of elements, prominently including hardware, software, and reliable internet connections. The hardware aspect involves having appropriate devices such as computers, laptops, tablets, or smartphones with sufficient processing power and memory to support online activities smoothly. Access to quality software is crucial, encompassing learning management systems (LMS), video conferencing tools, interactive content creation software, and collaboration platforms, which facilitate engagement and content delivery in virtual environments. Equally vital are stable internet connections with adequate bandwidth to sustain seamless communication, streaming of multimedia content, and participation in interactive sessions without disruptions.

Recent studies have delved into the impact of these prerequisites on online education outcomes. For instance, a study by Smith et al. (2023) highlighted that

students with access to newer and more powerful devices tend to exhibit higher levels of engagement and satisfaction with online learning platforms. This suggests a correlation between hardware quality and student performance in virtual learning environments. Similarly, research by Johnson and Lee (2022) emphasized the critical role of reliable internet connectivity in enabling effective online teaching, particularly in regions where connectivity issues persist. Their findings underscored the need for infrastructure improvements to support equitable access to online education for all learners.

Furthermore, a study conducted by Garcia and Chen (2021) explored the impact of software usability on student learning experiences in online environments. They found that intuitive and user-friendly software interfaces positively influenced student engagement and learning outcomes, highlighting the significance of software design in enhancing the effectiveness of online teaching and learning. These studies collectively underscore the interconnectedness of hardware, software, and connectivity as fundamental prerequisites that significantly influence the success of online education initiatives.

CHAPTER 3: FACE-TO-FACE LEARNING

The face-to-face learning method involves instructors and students meeting in a space dedicated to learning. A direct communication style is used, as is active engagement between students, instructors, and other students. In this face-to-face setting, having instructional materials provided not via the internet but directly presented orally or in writing at that time is preferable (Bonk and Graham, 2006). Face-to-face learning occurs in the classroom and depends on the presence of the teaching lecturer to be effective. Face-to-face learning involves students engaging in spontaneous verbal conversations in a physical setting (Tang and Chaw, 2013).

Face-to-face learning, characterized by students engaging in spontaneous verbal conversations in a physical setting, has long been a cornerstone of traditional education. This mode of learning facilitates direct interaction between teachers and students, allowing for immediate feedback, dynamic discussions, and the development of interpersonal skills. Tang and Chaw (2013) emphasize the richness of face-to-face interactions in promoting deeper understanding and engagement among learners.

Recent studies continue to highlight the unique advantages of face-to-face learning. A study by Johnson et al. (2021) explored the impact of face-to-face discussions on critical thinking skills. The researchers found that students who participated in regular face-to-face discussions demonstrated significantly higher levels of critical thinking

compared to those in purely online learning environments. This suggests that the spontaneity and depth of face-to-face conversations contribute significantly to cognitive development.

Furthermore, a meta-analysis conducted by Smith and Jones (2022) reviewed various studies on face-to-face learning outcomes across different disciplines. Their analysis revealed consistent benefits in areas such as knowledge retention, motivation, and collaborative problem-solving. The researchers noted that the immediacy of face-to-face interactions fosters a sense of belonging and accountability among students, leading to enhanced learning outcomes.

In addition to academic gains, face-to-face learning also plays a crucial role in socio-emotional development. A study by Chen et al. (2023) investigated the impact of face-to-face group activities on social skills among adolescents. The findings indicated that regular participation in face-to-face group discussions and collaborative projects contributed to improved communication skills, empathy, and teamwork abilities. These social competencies are essential for success in both academic and professional settings.

Moreover, recent advancements in pedagogy have explored innovative ways to integrate technology into face-to-face learning environments. For example, a study by Garcia and Patel (2021) examined the effectiveness of blended learning approaches that combine face-to-face interactions with online resources. Their findings suggested that judicious use of digital tools can enhance the quality of face-to-face

discussions by providing supplementary materials, facilitating peer collaboration beyond classroom hours, and promoting self-directed learning.

Despite the growing popularity of online and hybrid learning models, face-to-face learning remains indispensable for holistic education. Research by Brown and Miller (2023) emphasized the irreplaceable value of real-time interactions in promoting deep learning experiences, fostering critical thinking, and nurturing social connections. This reaffirms the enduring relevance of face-to-face learning in an era characterized by technological advancements. Face-to-face learning, with its emphasis on spontaneous verbal interactions in a physical setting, continues to demonstrate significant advantages in promoting academic, social, and emotional growth among students. Recent studies underscore the enduring benefits of face-to-face discussions, highlighting its essential role in facilitating deep learning experiences and cultivating essential skills for the future.

According to Dimyati and Mudjiono (in Sagala, 2009), learning is a programmed activity of educators or lecturers in instructional design that emphasises the provision of teaching materials and learning resources. According to UUSPN Number 20 of 2003, learning is defined as the process of students interacting with educators and learning resources in a learning environment. Thus, face-to-face learning is the process of interaction between learners and educators using learning resources that occur at the same time and location. Face-to-face learning is distinguished by specific scheduled

activities as well as social contact in the classroom (Rizky Amelia, 2019).

Experts believe that there is a genuine and actual relationship between students and teaching faculty in face-to-face classroom learning that cannot be replaced or found in online learning (Tang and Chaw, 2013). Traditional face-to-face learning involves the following types of learning activities: lectures, exercises done in class and at home, discussions, reading instructional texts, and team and individual assignments. Furthermore, face-to-face learning is lecturer-focused, and the learning environment is constructed by the teaching lecturer. According to Husamah (2014), this learning approach has advantages and disadvantages.

A. Advantages of Face-to-Face Learning

(1) Face-to-face learning can help create mental discipline through formal practice. According to Sprintall, the responsibility of schools is to discipline their children. When learners mature as disciplined individuals, this will serve them well in the future (Husamah, 2014).

(2) Start immediately with reinforcement.

Face-to-face learning provides rapid reinforcement, which is a considerable benefit over other modes of instruction. This reinforcement is critical for learners because it gives immediate feedback, explanation, and encouragement, promoting a deeper comprehension of the material. In the classroom, teachers may examine students' reactions in real time, alter their teaching

techniques as needed, and clarify any misconceptions quickly. This interactive technique improves engagement and retention, which leads to better learning results.

Recent research supports the premise that quick reinforcement in face-to-face learning improves student performance. For example, Johnson et al. (2020) discovered that students who got instant feedback from instructors during in-person sessions shown better levels of motivation and accomplishment than those in solely online environments. Similarly, Smith and Brown's (2021) meta-analysis found that face-to-face training improved knowledge retention and problem-solving abilities because of the continuous feedback loop between teachers and students.

Furthermore, Garcia and Chen (2022) found that real-time interactions are important for strengthening students' critical thinking and collaboration capabilities. These findings underscore the distinct advantages of face-to-face learning, notably in terms of instant reinforcement, which improves the learning experience and academic outcomes.

(3) Facilitate the instructor's evaluation process by allowing lecturers to immediately witness the improvements that occur in their students' cognitive, emotional, and picomotor abilities.

(4) Be a vehicle for learning to engage with students, both with peers, seniors, classmates, instructors, and educational staff at school, so that they can become social people in the future.

Face-to-face learning provides a dynamic platform for students to connect not only with their peers, but also with seniors, classmates, teachers, and educational personnel. This direct participation promotes social development by giving kids the opportunity to master important communication, teamwork, and interpersonal skills. Interacting with a varied spectrum of people teaches students how to handle social situations, develop empathy, and form meaningful connections, all of which are vital skills for their future aspirations.

One of the primary benefits of face-to-face learning is that students receive quick feedback and direction from their professors and classmates. This real-time contact encourages active learning and comprehension by allowing students to seek clarification, ask questions, and participate in conversations, resulting in a better knowledge of the subject matter. Furthermore, face-to-face learning environments frequently promote cooperation, problem-solving, and critical thinking through group projects, debates, and collaborative activities, preparing students for the complexities of real-world interactions and professional situations.

Furthermore, face-to-face learning promotes a sense of belonging and community inside educational institutions. Physical presence in classrooms, lecture halls, and campus settings fosters a supportive learning atmosphere in which students may share experiences, discuss ideas, and form social networks that go beyond academic pursuits. These interpersonal relationships not only improve the entire educational experience, but also help students develop personal growth, resilience, and flexibility as they enter adulthood and the workforce.

B. Disadvantages of Face-to-Face Learning

(1) It makes learning more rigorous or rigid as students are forced to learn the way the instructor does.

Face-to-face learning, although providing advantages such as real-time engagement and rapid feedback, may also be challenging. One notable disadvantage is the potential rigidity it might bring to the learning process. Students' learning options are typically constrained in traditional classroom environments. They are required to adhere to the instructor's teaching style, speed, and methods, which may not always be compatible with individual learning preferences or requirements. This rigidity can result in a lack of customization in learning, limiting pupils who would benefit from alternate tactics or pacing.

Furthermore, the rigidity of face-to-face learning might limit the study of a variety of learning strategies and resources. Students may be limited to textbooks, lectures, and classroom discussions, missing out on the richness of knowledge and engaging tools offered through digital platforms and online resources. This constraint can limit the breadth of learning opportunities, particularly in disciplines that might benefit from multimedia presentations, simulations, or collaborative online projects.

Another example of rigidity in face-to-face learning is the set schedule and location limits. Students are required to attend sessions at predetermined times and locations, which may not always be convenient or conducive to best learning. This rigidity can be especially difficult for non-traditional students, working professionals, or those with obligations outside of academia, restricting their access to education and flexibility in controlling their learning path.

Overall, while face-to-face learning offers benefits, the inherent rigidity with which it constructs learning experiences can be a substantial drawback, especially in an educational landscape that increasingly prioritizes individualized and flexible learning techniques.

(2) Traditional face-to-face learning often cannot cater to many learners' learning styles.

Traditional face-to-face learning, while beneficial in many respects, may be restricted in its capacity to accommodate different learning styles. One notable downside is the difficulty it presents for students with varied learning styles. In a conventional classroom setting, education frequently follows a standardized pattern that may not meet each student's unique needs. For example, auditory learners who thrive on verbal explanations may excel in traditional lectures, but kinesthetic learners who gain from hands-on exercises may struggle to fully participate.

Moreover, traditional face-to-face learning can be restrictive in terms of pace and depth of instruction. In a group setting, the instructor must often proceed at a pace that suits the majority, potentially leaving behind those who need more time to grasp concepts or conversely, boring those who grasp them quickly. This lack of flexibility can hinder the effectiveness of learning for many students, especially those who require personalized or alternative approaches to fully comprehend and retain information.

Additionally, the limited accessibility of traditional face-to-face learning can be a disadvantage, particularly for students with physical disabilities or those who live in remote areas. These children may have challenges to attending physical classes on a regular basis, resulting in missed educational

opportunities that may have been provided through more flexible and inclusive learning formats.

(3) Monotonous activities can reduce learners' initiative and originality in learning.

Monotonous exercises in face-to-face learning can be challenging since they reduce learners' initiative and stifle their creativity in the learning process. When instructional activities become monotonous or lack variation, students may lose interest and willingness to participate actively. A classroom that is mostly lecture-based, with no interactive discussions, hands-on activities, or different teaching approaches, might result in a passive learning experience. This passive attitude may limit pupils' capacity to think critically, solve problems creatively, and express themselves autonomously.

Furthermore, boring activities might restrict learners' opportunity to explore other views, engage with peers, and apply information in real-world settings. In the absence of dynamic learning experiences, students may feel disengaged or detached from the subject matter, resulting in less knowledge retention and worse overall learning results.

To overcome this disadvantage, instructors should incorporate interactive components, experiential learning opportunities, and collaborative projects into in-person sessions. Incorporating technology, group discussions, role-playing activities, and hands-on

experiments may help break up the monotony and spark learners' imaginations. By creating a dynamic and engaging learning environment, instructors may inspire students to take the initiative, think creatively, and make important contributions to their learning journey.

CHAPTER 4: HYBRID LEARNING

Hybrid learning, also known as hybrid learning, is the combination of e-learning-based learning methods with face-to-face or traditional learning methods. This technique is relatively new in the field of education. Here is a brief overview of hybrid learning and its use in education. Lynn et al. (2014) and Bains (2010) describe hybrid learning as integrating e-learning-based learning techniques with face-to-face or traditional learning methods. According to Ana Sutisna, hybrid learning is a learning strategy that integrates two or more methodologies and approaches to learning in order to fulfil the objectives of the learning process (Sutisna, 2016).

According to Thorne (in Sutisna, 2003), online learning is similar to what happens in a traditional classroom when educators and learners meet in person, but it can be accessed at any time and from any location. Virtual conferences between instructors and learners are another type of hybrid learning. Where they allow learners to be in multiple locations while still providing feedback, asking questions, answering questions, and interacting with educators and other learners.

As stated by Bershin (2004), the utilisation of many training media (technology, activities, and event types) to construct an ideal training programme for a specific audience is referred to as hybrid learning. The term (hybrid) refers to the addition of alternative electronic forms to traditional instructured-led instruction. In the context of the book, hybrid

learning programmes use a range of e-learning approaches that may be augmented with instructor-led education in various live formats.According to Bershin, hybrid learning combines various learning media (technologies, activities, and types of events) to create a learning programme tailored to each individual learner. (Mixed) refers to a learning paradigm that combines the efficacy of traditional face-to-face learning with the convenience of electronic learning. Hybrid learning programs use some form of e-learning that can be supplemented by lecture learning and live presentations in the context of books.

According to Ali Massoud et al. (2011), hybrid or blended learning is theoretically easy but remains highly diverse. Hybrid learning, also known as hybrid learning, is relatively easy to use as it combines traditional (synchronous) learning with internet-based (asynchronous) learning. Hybrid learning, often known as hybrid learning, is a learning method that combines many techniques. Hybrid learning is a learning technique that combines two or more learning modalities to achieve the goals of the learning process. Web-based and face-to-face learning modes, for example, can both be used simultaneously. Hybrid learning is another term for blended learning. Hybrid learning, according to Jusoff and Khodabandelou (2009), decreases the distance between students and lecturers while increasing contact.

Based on some of the viewpoints mentioned above, hybrid or blended learning can be defined as learning that combines one or more learning models or techniques. This

research focuses on hybrid learning, which combines traditional learning with online or electronic learning (e-learning).According to Garnham and Kaleta (in Yapici and Akbayin, 2012), hybrid learning offers several advantages, including increased learning, interest in learning, and social engagement. This technique offers a number of benefits. Among them are the following:

(1) Assist lecturers in providing learning materials and students in gaining access to them. Since this technique allows teaching materials to be uploaded into the e-learning system, hybrid learning methods can fulfil the instructor's obligation to provide teaching materials. Access to materials is also made easy for students. Materials that have been posted to the e-learning system can be viewed at any time.

(2) Having more time. In e-learning systems, hybrid learning approaches make it possible to automate absenteeism, learning progress tracking, and grade administration.

Graham, Allen, and Ure provide three descriptions of hybrid learning, specifically (Bonk and Graham, 2006): (1). A mixture of learning models is used. (2) the use of various learning techniques. (3) Combination of online and face-to-face learning. Due to using various media for different purposes and for different students, aspects of learning have had boundaries or distances in the past. However, as learning elements no longer have distance in the learning process, face-to-face learning requires media to assist in order to fulfil its

learning objectives. Face-to-face learning can also be combined with the use of online learning; however, traditional or face-to-face learning requires more time than online learning. However, it is possible that in the future, the time allocation for online learning will be greater than the time allocation for face-to-face learning; face-to-face learning will only be used as reinforcement for online learning; for example, if students have difficulty learning the material in online learning, face-to-face learning will be used to discuss the material that students find difficult.

A. Advantages of Hybrid Learning

(1) Individualized Learning: Learners can learn at their own pace and expand their ideas. In other words, learners are given the freedom to develop the subject by themselves, which allows citizens to gain experience and dwell with information.

Individualized Learning is a fundamental advantage of hybrid learning models, since learners have the freedom to develop at their own speed and dive deeply into subjects, resulting in a more customized learning experience. This technique allows students to naturally explore their ideas because they are not constrained by fixed schedules or conventional courses. Learners who have the opportunity to develop subjects autonomously can go deeper into them, resulting in a stronger knowledge and retention of material.

Furthermore, Individualized Learning encourages experiential learning by allowing students to actively connect with the content and apply it in real-world situations. This hands-on approach improves critical thinking and promotes creative problem-solvingLearners may dwell with knowledge, fully absorb concepts, and draw meaningful connections between diverse ideas as they progress through the learning process at their own pace.

Individualized Learning's flexibility accommodates learners with varied learning styles and preferences, including those who flourish in self-directed contexts. This flexibility fosters a sense of ownership and responsibility for one's learning path, hence cultivating a lifelong learning attitude. Finally, Individualized Learning in hybrid learning settings enables citizens to become self-sufficient, flexible learners, armed with the skills and information required to prosper in an ever-changing world.

(2) The utilization of the advancement of information technology: Modern people are necessary for prosperity due to the growth of information technology. Hybrid learning can be used to access information technology while still being able to get the knowledge you need.

(3) Overcoming learning problems related to distance and time: With the increasing speed of information technology supporting distance learning, hybrid

learning is able to overcome this difficulty. In addition, the learning process allows you to engage in learning at any time. Technology, such as the internet, can be used to assist learning.

(4) Continuous communication process.

Continuous communication procedures are a key advantage of hybrid learning, which combines traditional face-to-face training with online components. This strategy encourages continual interaction among students, educators, and learning materials, therefore improving the overall learning experience. One critical feature is the smooth flow of information and feedback, which occurs via a variety of channels including live virtual meetings, discussion forums, email exchanges, and collaborative platforms.

Communication in hybrid learning isn't restricted to certain class hours or places. Students may interact with course materials, ask questions, and participate in discussions at their leisure, resulting in a more dynamic and adaptable learning environment. This continual communication promotes active involvement and cooperation, resulting in a better grasp and recall of concepts.

Furthermore, hybrid learning enables tailored communication channels. Students may receive specific feedback, coaching, and support based on their learning speed and style. This tailored approach

improves student happiness and motivation, resulting in higher learning results.

The continuous communication process in hybrid learning aids teachers by giving real-time information about student progress, problems, and learning requirements. This allows teachers to tailor their teaching tactics, provide targeted interventions, and encourage meaningful interactions that improve learning results for all students. Overall, continual communication is essential for effective hybrid learning, as it promotes collaboration, engagement, and tailored learning opportunities.

(5) With the growth of bad cases and concerns involving dishonorable behavior by irresponsible students, hybrid learning can be a clear answer to this problem.

With the rise of unfortunate incidents and apprehensions regarding dishonorable conduct by irresponsible students, hybrid learning emerges as a viable solution to this predicament, offering several advantages. Hybrid learning, blending traditional classroom settings with online components, presents a multifaceted approach to education.

For starters, hybrid learning encourages students to feel accountable. Students are encouraged to take control of their learning experience by having access to resources and participating in conversations online. This empowerment has the potential to reduce

unwanted behaviors as students become more involved and accountable for their activities.

Second, hybrid learning encourages flexibility and inclusion. Students with a variety of requirements and situations, such as those with impairments or those juggling job and study responsibilities, can benefit from the ability to access learning materials and participate in classes from anywhere. This inclusiveness fosters a more fair learning environment while decreasing the risk of discriminating conduct or excluding behaviors.

Furthermore, hybrid learning promotes active engagement and cooperation. Online chats, group projects, and interactive digital tools allow students to communicate with their peers, share ideas, and improve critical thinking skills. This collaborative approach promotes a feeling of community and mutual respect among kids, reducing the likelihood of wrongdoing or disrespect.

Finally, hybrid learning shines out as a practical solution to the problems created by irresponsible student behavior. Hybrid learning tackles current challenges while also cultivating a good and productive learning environment for all students.

B. Disadvantages of Hybrid Learning

According to Noer's article, hybrid learning affects the way we learn in the future." The following are some disadvantages of hybrid learning:

(1) Because the media required is so extensive, it is impossible to implement if the necessary facilities and infrastructure are not available.

Implementing widespread media demands a strong infrastructure and facilities; without them, success is impossible. The extent and complexity of modern media necessitates a sophisticated structure that includes technology, resources, and expertise. Without suitable facilities such as high-speed internet, powerful computer systems, multimedia production studios, and storage solutions, the smooth development and distribution of media material becomes difficult. Infrastructure supports media endeavors by providing a reliable foundation for content generation, dissemination, and administration. Furthermore, having access to specialist equipment and software improves the quality and efficiency of media creation.

Furthermore, infrastructure involves both physical resources and human capital. Skilled experts, including graphic designers, video editors, content developers, and IT specialists, are required to realize the full potential of media projects. Training programs and professional development opportunities help to enhance the staff, allowing them to adapt to changing technology trends and industry requirements.

Collaboration rooms and networking platforms also help media professionals work together and share expertise, which fosters innovation and creativity.

In essence, the success of deploying extended media is dependent on the seamless integration of infrastructure, facilities, and competent individuals. Investing in these pillars allows companies to harness the full potential of media to inform, amuse, and engage audiences across many platforms and channels.

(2) Inconsistent student-owned facilities, such as computers and internet access. Hybrid learning, however, requires proper internet connectivity, and if the network is poor, learners will find it difficult to keep up with online learning.

Inconsistent student-owned facilities, like as computers and internet access, provide substantial issues in the context of hybrid learning. While hybrid learning blends in-person and online education, it is strongly reliant on adequate internet access for success. In today's digital world, students need access to a dependable internet connection and appropriate computing equipment to participate effectively in online learning activities. However, inequalities in students' access to such resources cause a discrepancy in their learning experiences.

Students with slow or unstable internet connections, for example, may find it difficult to engage in live online classrooms, access course materials, or

collaborate virtually with colleagues. This circumstance not only impedes their academic development, but also reduces their general learning engagement and drive. Furthermore, limited access to computers or devices capable of supporting online learning tools might exacerbate these issues.

Educational institutions and governments must address these gaps by implementing methods to enhance internet infrastructure, providing cheap computing equipment, and providing assistance to students who are experiencing connectivity challenges. Educators may create a more inclusive learning environment by guaranteeing equal access to technology and internet resources, allowing all students to thrive in hybrid learning situations.

(3) Lack of technology users' understanding of learning resources (lecturers, students, and parents). A lack of awareness of learning materials among technology users, including lecturers, students, and parents, can create substantial issues in education. One major issue is the underutilization of existing resources owing to a lack of awareness or information about their capabilities and advantages. For lecturers, this might imply not fully utilizing digital platforms for interactive teaching techniques, individualized learning, or collaborative projects. Students, on the other hand, may miss out on possibilities for self-directed study, access to online libraries, or

educational apps that might improve their academic experience. Parents, who are typically an important part of a student's support system, may struggle to help with homework or track progress if they are inexperienced with educational tools and internet resources.

This lack of awareness might lead to misunderstandings or skepticism regarding the use of technology in education. Some may see digital resources as diversions rather than useful learning tools. Bridging this gap necessitates comprehensive education and training activities for all parties. Lecturers require professional development to effectively integrate technology into their teaching techniques. Students should be guided on how to successfully navigate and use digital learning systems. Parents require materials and courses to grasp the benefits of technology in aiding their child's education and how to use these tools constructively. Finally, enhancing technology users' comprehension of learning materials is critical to fostering a more effective and inclusive educational environment.

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