EMPOWERING FUTURES: STRATEGIC PLANNING FOR E-LEARNING SUCCES AMONG YOUNG GENERATIONS

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ABSTRACT

E-learning is a formal learning system supported by electronic resources, computer technology, and the internet. It offers flexible, accessible, and interactive learning opportunities that can enhance the educational experience of the younger generation. However, the effective implementation of e-learning requires well-structured strategic planning. This paper discusses key strategies for promoting e-learning among young learners, focusing on five main areas: infrastructure and access, curriculum development, teacher training and support, student engagement and collaboration, and continuous evaluation and improvement. The study highlights the importance of bridging the digital divide, developing user-friendly and mobile-accessible platforms, and promoting digital literacy among students, parents, and educators. It also emphasizes the role of interactive and multimedia-based curricula, professional development for teachers, and collaborative learning environments in improving student engagement. Continuous assessment and feedback mechanisms are essential to ensure quality and effectiveness. Overall, effective strategic planning and collaboration among stakeholders are crucial to maximizing the benefits of e-learning and preparing young learners for the digital era.

Keywords: E-learning; Strategic planning; Digital education; Student engagement;

INTRODUCTION

The formal learning system with the help of electronic resources is known as e-learning (Maatuk, 2022). Whereas teaching can be inside (or outside) the classrooms, the use of computer technology and the internet is the main component of e-learning (Aboagye et al. (2020). In today's digital age, e-learning has emerged as a powerful tool for education, offering immense potential to revolutionize the way young generations learn and acquire knowledge. Altawaty et al. (2020) mention with its flexibility, accessibility, and interactive nature, e-learning has the ability to engage students in a personalized and immersive learning experience. However, for e-learning to truly flourish among the

young generation, it requires a well-thought-out and effective strategic planning approach. Effective strategic planning holds the key to promoting e-learning among young learners, ensuring that they can harness the full benefits of digital education. By carefully designing a comprehensive strategy, educational institutions, policymakers, and stakeholders can pave the way for a transformative learning experience that transcends traditional classroom boundaries and empowers young minds.

A successful strategic plan for promoting e-learning among the young generation encompasses various essential elements. It involves setting clear objectives to drive the adoption and integration of e-learning methods. A thorough needs assessment is conducted to identify the existing gaps, challenges, and opportunities in the current educational landscape. This assessment helps shape the strategy by understanding the specific requirements and preferences of young learners. The work described by Goyal (2012) has tried to emphasize the importance of e-learning in modern teaching and illustrates its advantages and disadvantages. The use of ICT can promote the development of an educational policy that encourages creative and innovative educational institution environments (Altawaty et al., 2020).

The strategic plan then focuses on developing a holistic approach, encompassing infrastructure development, curriculum integration, teacher training, content creation, and student engagement strategies. By investing in the necessary technological infrastructure, such as high-speed internet connectivity and devices, educational institutions can ensure seamless access to e-learning resources for young learners. Additionally, creating or curating high-quality e-learning content that is engaging, interactive, and aligned with the curriculum can foster a dynamic learning environment.

In essence, effective strategic planning is crucial for promoting e-learning among the young generation. Turnbull (2021) mentioning by considering the unique needs and aspirations of young learners, harnessing the power of technology, and fostering a supportive ecosystem, e-learning has the potential to reshape education and empower the next generation of learners. Through collaborative efforts and a forward-thinking approach, we can unlock the transformative power of e-learning and provide young learners with an education that prepares them for the challenges of the digital age (see Figure 1).
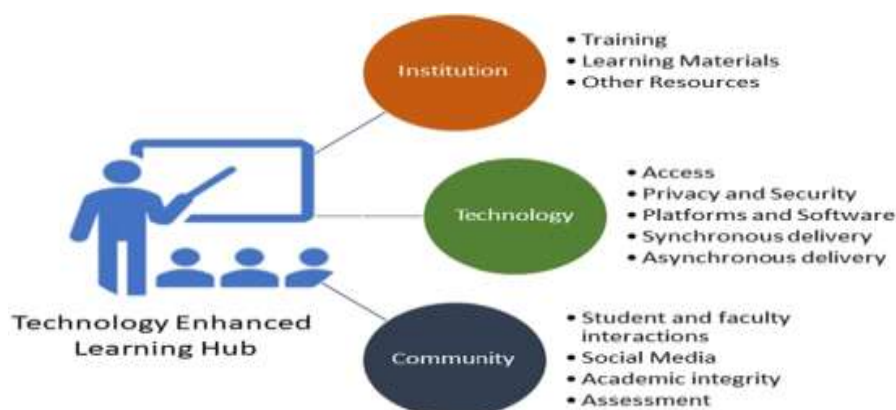

Figure 1: Technology enhanced learning hub (adapted from Turnbull et.al, 2021)

APPROACHES OF ENHANCING E-LEARNING

There are 5 effective strategic plans to promote e-learning methods especially for the younger generation today which will be discussed with examples of each one. There are (1) infrastructure and access, (2) interactive curriculum development, (3) adequacy training and support for teachers, (4) student engagement and collaboration and (5) continuous evaluation and improvement.

Infrastructure and Access:

Promoting e-learning among the younger generation requires addressing the digital divide and ensuring equitable access to technology and internet connectivity. Strategic planning should involve collaborating with various stakeholders, including governments, NGOs, and private entities, to establish infrastructure in underserved areas. This can include initiatives such as setting up community centers with internet access, providing subsidized or free internet plans, and distributing low-cost or refurbished devices to students. Additionally, partnerships with internet service providers and technology companies can help expand connectivity options and bridge the digital divide.

Web-based education, digital learning, interactive learning, computer-assisted teaching and internet-based learning are known as E-learning (Aljawarneh, 2020. To reinforce access to e-learning, it is essential to prioritize the development of user-friendly platforms and interfaces that specifically meet the needs of younger learners. These platforms should be designed in a way that makes them intuitive, engaging, and easy to navigate, taking into account the unique characteristics and preferences of younger students. One of the most fundamental obstacles to transitioning to online learning mentioned in the studies was satisfactory internet connectivity (Chan & Wilson, 2020) where internet connectivity is difficult and provides limited upload and download speeds especially at Middle East country (Lassoued et al., 2020). Platform access issues and software problems were also a concern for participants in Mouchantaf (2020)'s study of teacher perspectives of online learning in Lebanon

Since many students primarily access educational resources through smartphones or tablets, optimizing e-learning platforms for mobile devices is of utmost importance. This means ensuring that the platforms are responsive and can adapt to different screen sizes and resolutions. Mobile optimization allows students to conveniently access learning materials anytime and anywhere, making learning more flexible and accessible. Home ICT devices today are mostly used to access services offered on the Internet, such as computer-mediated communication (Internet telephony, e-mail, instant messaging, chat, etc.), web-based services (social networks and online community services, news websites, e-commerce, online banking, etc.) OECD (2015b).

In addition to user-friendly platforms, promoting digital literacy among students, parents, and educators is crucial. This lack of digital literacy among faculty is also confirmed as a barrier to online medical training in Jordan (Al-Balas et al., 2020). He defines that digital literacy refers to the ability to navigate, evaluate, and effectively use digital technologies and information. By equipping learners, their families, and teachers with digital literacy skills, we can empower them to make the most of e-learning resources and overcome potential barriers. Digital literacy encompasses various aspects, including

understanding how to use online tools, critically evaluating the credibility of online information, practicing responsible online behavior, and ensuring digital security and privacy. By providing training, resources, and ongoing support, educational institutions can foster digital literacy among their stakeholders, enabling them to harness the full benefits of e-learning.

Moreover, collaboration between educational institutions, technology developers, and policymakers is essential to address any challenges related to access and digital literacy. Institutional support was vital to the success of transitioning to online learning for student and also the teachers (Alqahtani & Rajkhan, 2020; Davies et al., 2020; Hartshorn & McMurry, 2020). Davies et al. (2020) also mention that collaboration can lead to the development of innovative solutions, such as partnerships with internet service providers to ensure affordable and reliable internet access for all students (Hartshorn & McMurry, 2020) regardless of their socioeconomic background.

In summary, reinforcing access to e-learning requires the creation of user-friendly platforms optimized for mobile devices, as well as promoting digital literacy among students, parents, and educators. By prioritizing these factors, we can maximize the potential benefits of e-learning and minimize any barriers that may hinder its effectiveness.

Curriculum Development

Developing an effective and engaging online curriculum is vital for promoting e-learning among the younger generation. Strategic planning should involve curriculum designers, subject matter experts, and instructional designers who understand the needs and preferences of young learners. The curriculum should align with educational standards while incorporating innovative teaching methodologies and interactive elements.

To cater to different learning styles and preferences, e-learning platforms should embrace a diverse range of multimedia resources. By offering various formats such as videos, animations, podcasts, and interactive simulations, learners can engage with the content in ways that suit their individual preferences and enhance their understanding. Anderson and Shattuk (2012) stated that the majority of interventions (68 percent) involved the use of online and mobile technology that tested the effectiveness of the learning environment or specific tools in e-learning.

Videos are particularly effective in delivering visual and auditory information simultaneously, making them suitable for learners who benefit from visual and auditory stimuli. They can present complex concepts in a more accessible and engaging manner, allowing students to grasp ideas more effectively. Animations, on the other hand, can break down complex processes or abstract concepts into simpler, visually appealing representations, aiding learners who respond well to visual learning. Synchronous online learning involving the real-time interchange of information is usually conducted via video conferencing tools such as Zoom and Skype (Janghorban et al., 2014; Kohnke & Moorhouse, 2020)

Podcasts can be beneficial for auditory learners who prefer to process information through listening. They provide an opportunity to deliver educational content in an audio format, allowing students to absorb information through spoken explanations, discussions, and interviews.

Kohnke & Moorhouse (2020) describe the interactive simulations can simulate real-world scenarios and provide hands-on experiences, catering to learners who thrive in experiential and kinesthetic learning environments. These simulations enable students to actively participate, manipulate variables, and observe the outcomes, fostering a deeper understanding of the subject matter.

Incorporating gamification elements into e-learning platforms can also enhance engagement and motivation. Quizzes, badges, leaderboards, and rewards create a sense of achievement and friendly competition, encouraging students to actively participate and progress. Such game-like features can make the learning experience more enjoyable and increase student motivation and retention of knowledge.

Adaptive learning technologies play a crucial role in personalizing the learning experience for each student. These technologies use data analytics and algorithms to assess individual student performance and progress. Based on this information, the platform can dynamically adjust the curriculum, providing personalized recommendations, targeted support, and appropriate challenges to meet each learner's specific needs. For instance, adaptive learning platforms can identify areas of weakness for a student and provide additional resources or exercises specifically targeting those areas. Similarly, for advanced learners, the platform can offer more challenging content to foster their growth and prevent them from becoming disengaged due to lack of stimulation.

By incorporating a variety of multimedia resources, gamification elements, and adaptive learning technologies, e-learning platforms can cater to different learning styles and preferences. This approach promotes active engagement, motivation, and personalized learning experiences, ultimately leading to more effective educational outcomes for students.

Teacher Training and Support:

Creative learning requires innovative teaching and innovative teaching is both teaching practice for creativity and the application of innovation in teaching which both of these aspects require an educational culture that values creativity and sees it as an asset in the classroom (Ferrari et.al. 2009). Turnbull et.al (2021) delves that training is an important component of both instructor and student success online to developed effective e-learning. Investing in comprehensive teacher training and support is crucial for the successful implementation of e-learning initiatives. Strategic planning should include professional development programs that equip teachers with the necessary skills and competencies to effectively engage young learners in an online environment. According Krull and Duart (2017) delves that following rapid changes in mobile technology, including devices and communication technology has opened up new research opportunities and even changed the focus of research that will

open opportunities for teachers to continue exploring e-learning. Training should cover various aspects, including digital pedagogy, online instructional strategies, assessment methods, and technology integration. Training in specific technologies for both teachers and students was identified as a needed institutional support for ESL learners (Hartshorn & McMurry, 2020).

To ensure ongoing support for educators in delivering e-learning content, it is crucial to provide them with access to dedicated help desks or technical support teams. These support channels can assist teachers in resolving any technical issues they encounter while using e-learning platforms or tools. Having a reliable and responsive help desk ensures that educators can quickly address any technical challenges they may face, allowing them to focus on delivering effective online instruction.

Collaborative communities and online forums play a vital role in supporting educators in the e-learning environment. These platforms provide spaces for teachers to connect, collaborate, and share their experiences, ideas, and resources. Educators can discuss challenges, seek advice, and learn from the expertise of experienced e-learning practitioners. By engaging in these communities, teachers can access a wealth of knowledge and best practices that can enhance their teaching strategies and improve student outcomes.

Mentoring programs are another valuable resource for ongoing support. Pairing experienced e-learning educators with those who are new to the field can foster professional growth and development. Mentors can provide guidance, share insights, and offer practical advice based on their own experiences. This one-on-one support can be particularly beneficial for educators who are transitioning to the e-learning environment or seeking to enhance their skills in delivering online instruction.

Peer-to-peer support networks are also effective in fostering a culture of continuous learning among educators. Creating opportunities for teachers to collaborate and support one another through informal networks or structured professional learning communities can be highly valuable. These networks allow educators to share challenges, successes, and innovative ideas, creating a supportive environment where they can learn from each other's experiences and expertise. Interestingly, Zoom was also used to support medical education programs in Jordan (Al-Balas et al., 2020) and Saudi Arabia (Khalil et al., 2020) which support continuous professional learning and sharing the knowledges.

In addition to these support mechanisms, ongoing professional development opportunities should be provided to educators. Training sessions, workshops, webinars, and conferences can equip teachers with the necessary skills and knowledge to effectively leverage e-learning tools and methodologies. Providing educators with opportunities to continuously enhance their understanding and competence in e-learning ensures that they stay up-to-date with emerging trends and best practices. For example, in China, the need for simulation software training for teachers and self-management strategies for students was mentioned in Wang et al. (2020)'s study of medical student experiences with online learning in China.

By establishing dedicated help desks, fostering collaborative communities, implementing mentoring programs, facilitating peer-to-peer support networks, and offering ongoing professional development, educators can receive the necessary support to navigate the e-learning landscape successfully. This support system promotes continuous learning, empowers educators to overcome challenges, and ultimately enhances the quality of online instruction for students.

Student Engagement and Collaboration:

Student engagement is an essential aspect of online learning (Redmond et.al.2018). Student engagement is a form of student involvement in activities and conditions likely to generate high-quality learning (Ball & Perry2011). According to Ferrari et.al (2009), the use of technology in school, requires a good understanding of the different levels of technology use by young children, to take advantage of the opportunities that technology brings. Creating an engaging and collaborative e-learning environment is essential to captivate the attention and interest of young learners. Strategic planning should focus on designing interactive activities and fostering peer-to-peer interaction. Online platforms can facilitate virtual discussions, group projects, and collaborative problem-solving activities, allowing students to learn from one another and develop important skills such as teamwork, communication, and critical thinking.

To enhance student engagement in e-learning, it is beneficial to incorporate social learning features into the platforms. These features create opportunities for students to interact with peers, share ideas, collaborate, and learn from each other. By fostering social connections and facilitating active participation, student engagement can be significantly enhanced. Figure 2 show analysis by Turnbull (2021) towards the top eleven mentions of popular and interactive platforms used during Covid-10 pandemic while e-learning at home. One way to promote social learning is by incorporating chat functionalities, discussion boards, or forums within the e-learning platform. These features allow students to engage in real-time or asynchronous conversations, share their thoughts, ask questions, and provide feedback. Discussions can take place around specific topics, assignments, or projects, encouraging students to critically think, express their opinions, and learn from different perspectives. By actively participating in discussions, students develop communication skills, deepen their understanding of the subject matter, and feel a sense of belonging within the online learning community.
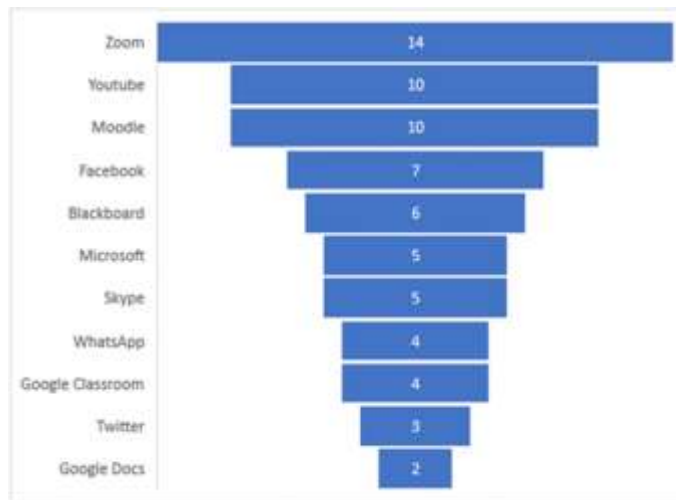
Figure 2: Eleven most mentioned technologies

Virtual classrooms are another effective social learning tool. They provide a space for students and teachers to interact in real-time through video conferencing, audio communication, and instant messaging. Virtual classrooms enable synchronous learning experiences, where students can actively engage in discussions, ask questions, and receive immediate feedback from their peers and instructors. These interactions simulate the collaborative and interactive nature of traditional classrooms, fostering engagement and facilitating meaningful learning experiences.

In addition to the built-in social learning features within e-learning platforms, leveraging social media platforms or dedicated online learning communities can further enhance student engagement. Social media platforms such as Facebook groups, Twitter chats, or Instagram communities can be utilized to create additional channels for students to connect, share resources, and engage in discussions related to their coursework. Online learning communities, specific to a particular subject or educational institution, provide students with opportunities to network, seek support, and participate in extracurricular activities related to their academic interests.

By integrating social learning features into e-learning platforms and leveraging social media or online learning communities, students can benefit from collaborative learning experiences, peer support, and the opportunity to engage beyond the confines of the classroom. These social interactions foster a sense of community, encourage active participation, and promote deeper engagement with the learning materials and concepts.

Continuous Evaluation and Improvement:

Curriculum content must be relevant to the real world as well as facilitate problem-centered learning (Fish & Wickersham, 2009). Same goes regular evaluation and improvement are crucial for the long-term success of e-learning initiatives. Strategic planning should include mechanisms to gather feedback from students, parents, and teachers to assess the effectiveness of the e-learning programs and

identify areas for improvement. Here are some key aspects to consider regarding continuous evaluation and improvement:

A.   Feedback Collection: Prior to assigning any online class to a faculty, the institution should evaluate and assess faculty knowledge and skills to efficiently and effectively manage an online class as well as provide strong online learning infrastructures (Fish & Wickersham, 2009). Establish channels and processes to collect feedback from students, parents, and teachers on various aspects of e-learning. This can be done through surveys, interviews, focus groups, or online feedback forms. Gather information about the usability of the e-learning platforms, the quality and relevance of the content, the effectiveness of instructional methods, and the overall learning experience. Encourage participants to provide specific suggestions and identify areas of strength and weakness. Faculty members must transform their on-campus teaching style to fit the new technologically enhanced world of e-learning (Rockwell, Schauer, Fritz, & Marx, 2000). This can be done effectively through communicative channels which have allowed instructors to personalize their courses and feedback (Helvie-Mason, 2010).

B.   Data Analytics: Leverage data analytics and learning analytics tools to gather quantitative insights about student performance, engagement, and progress. Analyze data on completion rates, assessment scores, time spent on different activities, and patterns of usage to gain a deeper understanding of how students are interacting with the e-learning materials. Identify trends and patterns that can inform decisions about content and instructional design modifications.

C.   Formative Assessment: Integrate formative assessment practices within the e-learning environment. Use quizzes, interactive activities, and self-assessment tools to provide immediate feedback to students on their progress and understanding of the content. Formative assessment not only helps students track their learning but also allows educators to identify areas where additional support or clarification might be required. Regularly review the results of formative assessments to identify common misconceptions or areas of difficulty for students. From the formative assessment made by the study of Kew & Tasir (2021) , they concluded that students who are highly engaged in online learning tend to have better conceptual understanding and achieve better learning outcomes.

D.   Performance Metrics: Define key performance metrics and indicators to measure the effectiveness of e-learning initiatives. These metrics may include student achievement, completion rates, learner satisfaction, and the impact on academic performance. Establish benchmarks and targets to track progress over time. This data can inform decision-making processes and help prioritize areas for improvement.

E.   Collaboration and Reflection: Foster a culture of collaboration and reflection among educators and stakeholders involved in e-learning initiatives. The online-learning tools brought

about by technological advancement, such as Learning Management Systems (LMSs), allow educators to connect and design interactive student activities which encourage regular discussions and meetings to share experiences, best practices, and lessons learned (Johar et.al, 2023). Collaborative reflection can lead to the identification of effective strategies, innovative approaches, and areas that require attention or modificaton. Encourage educators to participate in professional learning communities, attend conferences, and engage in continuous professional development to stay updated with the latest trends and research in e-learning.

F.   Iterative Design and Development: According to Joksimovic et al. (2015) ensuring that a LMS course is well designed with engaging content and collaborative activities in online learning is crucial for using an iterative design and development approach to continuously improve the e-learning materials and platforms. Regularly update and refine the content based on feedback and evaluation results. Incorporate emerging technologies, pedagogical advancements, and learner preferences into the design process. Pilot new features or approaches with a subset of learners and gather feedback before implementing them on a larger scale.

G.   Stakeholder Engagement: Involve students, parents, and teachers in the evaluation and improvement process. Seek their input and perspectives on the strengths and weaknesses of the e-learning initiatives. Engage in open and transparent communication to address concerns and suggestions. By involving stakeholders in decision-making processes, you can enhance their sense of ownership and commitment to the e-learning programs.

By implementing a robust continuous evaluation and improvement process, educational institutions can ensure that e-learning initiatives remain effective, engaging, and responsive to the needs of the younger generation. This iterative approach allows for ongoing adaptation and refinement, leading to continuous growth and improvement in e-learning outcomes.

CONCLUSION

Educational institutions must use online instruction and teaching continuously by using strategic planning, educational institutions and policy makers can effectively promote e-learning among the younger generation, providing them with flexible, accessible and attractive educational opportunities that meet the needs of the digital age. Salas-Pilco et al. (2022) pointed out that the quality of online learning can be improved by paying attention to technological aspects such as social networking platforms (Nor et.al, 2012) and teaching approaches, which are able to effectively promote engagement in learning. The collaboration of various parties should be best utilized to build an e-learning empire that is capable of coloring a more superior education system.

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