



GNOSI: An Interdisciplinary Journal of Human Theory and Praxis

Volume 6, Issue 1, January - June, 2022

ISSN (Online): 2714-2485

Blended Way of Learning in Early Years: Approaching an Era of Unified Opportunities in Learning

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(**Received:** February -2023; **Accepted:** March-2023; Available **Online:** March-2023)



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ABSTRACT

The pandemic's effects on young children's learning and development were felt globally, affecting children across countries and continents as a result of school closures. Governments increased their efforts to bridge the digital gap and made it possible to guarantee that children acquired fundamental skills. Lessons learned from the epidemic helped people understand the advantages of digital learning and encouraged the careful use of digital learning with more traditional learning methods. The best way to address gaps in reading and numeracy, especially those brought on by learning interruptions, is to adopt blended learning techniques with young children at an early stage of their learning and development. This paper is a literature review that thrives on understanding the significance of blended learning for young children, emerging challenges in its adaptation, and contemporary ways for its better adaptation. The creation of an enabling digital learning environment, customization of curriculum and learning material, ensuring continuous assessment of children, building understanding of blended learning among teachers and parents, lack of access to digital devices and connectivity, access to unregulated multiple learning resources, and the expensive nature of implementation of blended learning are the major challenges upfront. However, concerted efforts in adjusting the learning environment, curriculum, and pedagogical processes for blended learning, building competency of teachers, parents, and children on the use of blended modes, ensuring reliable and regulated digital platforms, bringing in administrative and systemic reforms, ensuring resource support, and increasing additional fund allocation are some of the trending steps for smooth positioning of blended learning in the education of young children.

Keywords: Early years; literacy; numeracy, blended learning; digital platform.

INTRODUCTION

Learning at the early years of child's life happens in preschool and early primary grades. This is the stage when these young minds are flexible and tender, which makes it the right time to activate their learning ability through exposure, opportunities, and constant support. It has been a matter of discussion globally, as it is the most significant stage of learning for children. Ample opportunities provided to the children at this stage form a strong foundation for their further learning and development. Hence, a lot of learning and development opportunities are required to be given to the children at this stage to ensure their holistic development, largely in terms of physical, cognitive, socio-emotional, and language skills.

Dealing with children and ensuring they are all engaged in learning is indeed a critical task; therefore, it is crucial that learning be integrated, joyful, interactive, engaging, and give ample opportunities for hands-on experiences. Also, at this early stage of development, the children who fail to attain basic competencies, mainly in foundational literacy and numeracy, find it difficult to catch up in later classes and fall behind, creating wide learning gaps. Belafi, Hwa, and Kaffenberger (2020) highlighted that low learning and learning gaps emerge early and accumulate over time, increasing the chances of these children dropping out of the school system altogether as they had missed basic competencies early on. Providing foundational learning in the early years ensures that all children, regardless of their socio-economic background, are given equal opportunity to perform well in school and are better prepared to improve their quality of life. In this process, schools are the best place to ensure learning among all children.

However, COVID-19 has had a great impact on the learning and development of children because of the school closures that happened due to the immediate pandemic policy measure. Some countries kept the school closed throughout the period of the COVID-19 outbreak, and some kept it partially open to maintain continuity in education. Globally, young children who are in the preschool stage and in primary grades are more affected than children of any other stage of education due to learning disruptions during school closures. UNICEF, in its report 'Preventing a Lost Decade,' released on its 75th anniversary, informed that, at its peak, more than 1.5 billion children were out of school due to nationwide shutdowns. Millions of children were either not in school or not learning the basic skills they needed to build a better future (2021a).

A joint report of UNESCO, UNICEF, and the World Bank also revealed that "COVID-19 resulted in an unprecedented disruption to education worldwide, affecting more than 1.6 billion students and amplifying the pre-existing learning crisis" (The World Bank, UNESCO, and UNICEF, 2021). UNICEF, through its report 'Where are we on Education Recovery?' prepared in partnership with UNESCO and the World Bank, revealed that according to the UNESCO Global Monitoring of School Closures from 2020 to 2022, about 1 in 10 countries will have fully closed their schools for over 40 weeks. Schoolchildren around the world have missed an estimated 2 trillion hours and counting of in-person learning since the onset of the pandemic and subsequent lockdowns (UNICEF, 2022). Physical school closures and the lack of in-person contact may result in students, especially younger ones, being less externally motivated to engage in learning activities (UNESCO, 2021c). This prolonged situation restricted children to the four walls of their houses, with limited scope for parents and families to ensure joyful learning. No friends, no space, no freedom to go out and play in the playground, and health issues

during the pandemic have created a lot of stress among young children and threatened the opportunity to learn skills, develop, and reach their full potential.

Due to the lockdown situation, all institutional bodies and schools were compelled to shut down globally. Countries moved to the digital/online system of working and teaching, including classes, projects, examinations, etc. In order to avoid learning loss, further exacerbating the learning crisis due to prolonged school closures and inadequate remote learning UNICEF affirmed that “to address the learning crisis, we must therefore ensure every student gains the skills to reach their full potential, including through quality digital learning” (UNICEF, 2021a). To mitigate this issue, countries deployed various other digital and online modalities too, ranging from online to partially online to offline mode, as solutions based on their context and resource availability (MHRD, 2020). UNESCO reported that during the pandemic, India, Lao PDR, Mauritius, and Oman exemplified the hybrid approach to learning. They adjusted the curriculum and increased teacher capacity for physical learning with investments in digital resources (2021c). Lessons from the COVID-19 pandemic that has created uncertainty in situations and the latest developments in digital/online learning in education have made every country think of investing more time, efforts, and resources to ensure accessibility to learning using technology, especially at the early stage of learning. However, there has to be a balance or blend of technology and traditional teaching methods for adaptive learning, especially when dealing with young children.

Imparting education in ‘blended learning’ mode is an innovative idea with immense potentiality to provide quality education to children (Kundu, 2018; Lalima and Dangwal, 2017). It has also come out as one of the emerging solutions as schools reopen that gives both teachers and children more opportunity to level up the learning in any situation (Topping, 2022; UNESCO, 2021b; UNESCO, UNICEF, the World Bank, and OECD, 2021; UNICEF, 2021a). It is a teaching and learning model that has a strategic combination of online and face-to-face class interaction. According to Topping et al. (2022), blended learning is a style of education where children learn through a mix of electronic and online media as well as regular face-to-face teaching in the classroom, so that they can, in part, control the time, pace, and place of their learning. It is more fluid as it can be relatively quickly transformed and adapted to changed situations. There have been many innovative practices of blending that existed before COVID-19; however, post-pandemic, the possibility of using digital platforms for addressing student learning has been explored in multiple ways.

UNICEF reported that “different remote or blended education modalities were implemented during the last two years, with a mix of high-, low-, and no-tech innovations that were critical to ensuring continuity of schooling” (2021a; 2022). Though learning in some form continued through blended mode, that had many benefits, such as helping children who missed classes do homework more conveniently, providing accessibility to resources, allowing flexibility in learning, and allowing easy monitoring of children’s progress (OECD, 2012). It also fits well with the competency-based learning model. Blended learning offers a wonderful opportunity to take the classroom learning outdoors to homes and neighborhoods where deeper learning about one’s own milieu can take place through various creative ways of inquiry and research. A positive outcome of blended learning at an early stage that can contribute to building lifelong skills for learning is that children become the ‘agents of their own learning’; they play an active role in deciding what and when to learn. This not only gives them freedom and flexibility to

work at their own pace, but it develops ‘learning how to learn’ a disposition and skill that they can use throughout their lives. It instills positive self-esteem in learners.

In this process, countries are facing enormous challenges because of the adaptation of blended learning, such as ensuring access to resources and infrastructure, mitigating the digital divide, dealing with gender disparity and multilingualism, developing teacher competency, addressing learning gaps among children, etc. Dziuban et al. (2018) and Sirisakpanich (2022), in a study, informed that “transitioning from classroom teaching to blended instruction is a challenge even under the best possible circumstances to adjust to the “new normal,” especially at the early stage of learning. However, it is still seen as an opportunity to leverage the potential of digital and online learning. This approach to adapting blended learning would help re-imagine and re-design the teaching and learning process and create more effective and equitable education systems, especially at the early stages of learning. For the smooth and swift adaptation of blended learning at the early stage, when children are at their most tender stage of learning and development, it is important to understand real challenges and ways to subdue them. Thus, this paper is designed to abound in objectives,

1. To fathom the emerging challenges in the adaptation of blended learning for learning in the early years.
2. To spot the means in the trend to ensure better adaptation of blended learning for learning in the early years.

METHODOLOGY

This paper is a narrative review of various national and international studies, reports, and policy papers to understand the key challenges in the adaptation of blended learning for learning in the early years and also identify the ways to ensure its better adaptation. Large- and small-scale research and surveys, status reports, and policy documents have been included in the review. These resources have been explored through manual browsing of relevant journals, electronic database searches on Google Scholar, JSTOR, Research Gate, Academia, and the official websites of different national and international departments, institutions, and organizations. These resources have enough potential to help peek into the systems and hint at challenges ahead in exercising blended learning mode at the early stage of learning and, at the same time, suggest approaches to mitigate the same while universalizing blended learning for young children.

RESULTS AND DISCUSSION

Challenges Ahead In the Adaptation of Blended Mode for Learning in Early Years

Proper planning and deployment of strategies, including funding to leverage the potential of technology in blended learning at an early stage of learning to improve learning outcomes, is important. UNESCO reported that the switch from face-to-face to remote learning during the pandemic made it harder for primary school children to learn. It was even more challenging for those who struggled to adapt to this new learning environment (2021c). Hence, the strategies must include creating an enabling digital learning environment, a pedagogically appropriate and digitally feasible curriculum (The World Bank, UNESCO, and UNICEF, 2021a; UNESCO, UNICEF, The World Bank, WFP, and UNHCR, 2020), and learning materials especially developed to address multilingualism, continuous assessment and tracking the progress of each child,

continuous professional development, and need-based interventions (UNICEF, 2022). There is also a need for the development of a system for effectively integrating blended learning into existing systems and processes that meet the specific needs and contexts of children and keep the child at the center of learning.

There are huge variations between countries on the issues of access and the digital divide that exist to address the equitable planning of blended learning in the early years of education. There are many children who are there with no devices; a few others may have some devices but do not have steady internet connectivity or electricity. UNICEF (2021a) reported that “globally, 2.2 billion children and young people aged 25 years or less—two thirds of children and young people worldwide—do not have an internet connection at home”. The World Bank, UNESCO, and UNICEF (2021) mentioned in a report that while shifting to remote learning, the digital divide became glaringly evident, with millions of children left behind. Most of these children are from disadvantaged groups, belong to geographically challenging regions, have low-income backgrounds, and are the children of migrant laborers. According to the UNESCO, even when children are offered remote instruction, those without reliable internet services or the devices to access it fall further behind (2021c). It is also critical to devise approaches to make blended learning inclusive, equitable, and reachable for all children who are not in school for a longer duration, have no or poor access to digital resources, have parents at risk due to their work, have migrant parents, have learning disabilities, are disabled, or have special needs, live in conflict zones or geographically isolated areas, and face challenges due to social, cultural, and gender norms. Zavaraki and Schneider (2019), in a study, found that a blended learning approach has much potential to aid children with special needs. They further mentioned that integrating advanced technology with traditional approaches has the potential to enrich the learning environment for such children.

Massive and multiple learning resources are available on the cloud, which are indeed useful for teachers, parents, and children, but sometimes make learners find themselves lost in them. Baeva (2021) informed us that the digital learning environment created by government order in various countries is becoming a concentration of large volumes of educational materials, tests, and assignments performed by children in many ways autonomously. Devising a mechanism to identify, localize, and map all required learning resources with learning outcomes or learning objectives for children and teachers is also important to ensure precise and quick accessibility. The OECD (2022) reported that digitalization affects security and privacy as well as health and well-being, particularly among children. Hence, all resources need to be carefully designed and mapped to take care of the mental and physical health and well-being of children, thus making digital education safe for them. It should also support personalized learning or monitor learners’ attendance (UNESCO, 2021c). Another key issue is the unstructured or unregulated system of introducing blended modes of learning interventions for the early stages, the monitoring or tracking of the quality of those interventions, as well as the monitoring of children’s learning, particularly for marginalized children, and the fact that blended learning is expensive to implement and maintain.

“Trending” means ensuring better adaptation of blended learning for learning in the early years.

UNICEF suggests that access to blended learning can act as a great equalizer (2021a) as it helps enhance children’s interests and curiosity in learning (Oza and Trivedi,

2021). However, ensuring learning in blended mode is immensely complex (Chand et al., 2020). To make it work, there must be careful designing and execution of programs, devices, and other obligations that come with educating young children (Kundu, 2018). Hence, strategies need to be devised for blended learning to gain the traction it needs to become a widely used and highly effective mode of learning.

1. *Re-creating an inclusive learning environment, re-designing the curriculum, and making pedagogical adjustments for blended learning*

Employing a blended learning approach must start with creating an inclusive and enabling learning environment for all children, full of interesting learning opportunities embedded with continuous tracking of each child's progress for individualized feedback and customization. For this, re-examination of the intended learning outcomes and assessment criteria to suit blended learning processes and accordingly designing contextualized and pedagogically appropriate inclusive curriculum and materials to suit children with special needs must be the prime step (Sirisakpanich, 2022; UNESCO, 2021a; UNESCO, UNICEF, The World Bank, WFP, and UNHCR, 2020). Later, devise learning activities that support intended learning outcomes, personalize or differentiate learning, and then integrate the activities effectively with the required assessment tools. Oza and Trivedi (2021) reported in a study that teachers were of the view that blended learning is essential provided the curriculum is well designed, keeping in mind the available resources and limitations. Ways and practices need to be traced to mitigate the issue of multilingualism and develop resources in vernacular and multilingual languages.

It is also important to provide full access to the children to learning materials in an anytime and anywhere mode that has greater flexibility (Topping et al., 2022), so that they can learn independently, at their own pace, and as per their own time frame (MHRD, 2020). At the same time, developing an understanding of the criticality of engagement among parents and teachers and ensuring that all children are engaged with a plethora of interaction and play (The World Bank, UNESCO, and UNICEF, 2021; UNESCO, 2021a) as these are the cores of learning at the early stage. Hence, the learning needs to center around play and close interactions between teachers and children, interaction among children themselves, interaction of children with material, and interaction of children with environment. Results of a study conducted by Tong et al. (2022) indicated that blended learning not only increased children's interactions with teachers but also improved their academic achievement, self-study abilities, and attitude towards learning. Toys and manipulatives also play a critical role in the formation of important concepts in learning during the early years.

2. *Developing the capacity of teachers on the use of blended learning modes*

Learning during the early years is a dynamic area that entails professional rigor, the creation of contextualized learning material, and an understanding of progressive pedagogy to help young learners develop required skills and competencies. This is possible when teachers are trained and motivated. However, every teacher also requires

continuous support and mentoring to address classroom-related challenges effectively, especially in the case of blended learning. Blended mode of learning offers them a wider scope for this by making available contextually and pedagogically appropriate curriculum and learning material through varied forms of high-end and low-end technological tools and digital platforms that teachers can leverage at their own pace as per their specific needs (UNICEF, 2022). Teachers must be oriented on the skillful and responsible use of these tools with younger children and for their own professional growth (OECD, 2022). UNESCO, UNICEF, and the World Bank (2021) have identified teacher capacity building as one of the key priority areas under 'Mission: Recovering Education 2021'. The area of action focuses on developing teacher capacity on pedagogies for remedial learning and blended learning approaches. Teachers should also factor in the learning gains made by children, who successfully leverage the online learning environment to learn new skills (UNESCO, 2021c). Ashraf et al. (2021) reported in a study that teachers appreciated the use of blended learning for its diversity, but they were against adopting it in their teaching due to limited pedagogical skills and the exam-oriented education system. Hence, the competencies of teachers in teacher training must be refined to make them aware of technology and perform facilitative roles (Chand et al., 2020; Lalima and Dangwal, 2017) such as questioning, creativity, observation, differentiation/scaffolding, facilitating collaboration, networking opportunities, as well as understanding and imparting knowledge of online protocols (such as cyber ethics and intellectual property). Teacher's continuous professional development programs must be customized accordingly with ample provision of onsite support on how to manage blended learning in individualized, self-paced, and for group learning involving parents in distance mode and for themselves. However, building an understanding to ensure the balance in the use of digital media and hands-on activities and experiences must be ensured (UNESCO, 2021b).

3. Exploring digital platforms for equity, access, and reducing the digital divide to ensure effective and safe blended learning.

It is important to be sensitive with respect to blended learning modes for learning, as with young children; technology is to be used as an enabler. The careful selection of technologies and the duration of their engagement are important considerations. The educational technology tool is likely to be very effective in ensuring learning if it is complemented by teacher-guided modalities (Ashraf et al., 2021). Continued interaction between children and teachers, including guidance and feedback on their work, is important for children to feel supported and to help establish a sense of routine and normality. With this understanding, countries have been using a wide range of technological solutions to deliver distance education throughout the pandemic, as per the need and resource availability. These include high-tech solutions based on the internet and lower-tech solutions that rely on printed material, radio, television, etc. as multimedia repositories for educational content (UNESCO, 2021a). Therefore, the online component in blended learning needs to be offered synchronously (as the teacher is teaching) or asynchronously (accessed at any time) (MHRD, 2020).

Low-tech resources must be explored, especially for socio-economically disadvantaged children and those facing geographical barriers. The content should be simple, flexible, interesting, and mediated or facilitated by adults. Chand et al. (2020) call for greater awareness among content developers on how their beliefs can subvert technology integration and for supportive professional development of teachers that will

help them incorporate technology in their pedagogical practice. Platforms should also be developed for the availability of best practices in the form of video recordings, discussion forums, and networks of social media groups. This can further enable the mentoring mechanism by tackling the individualized needs of children and teachers and accordingly planning further intervention. Digital assessment tools can be effective for getting direct, instant, and more organized feedback on learning that can be analyzed for further policy implications and used as a diagnostic tool for improving instruction.

It is also important that safety and privacy issues be addressed in any blended learning strategy. These include the time and duration for which children at the early stage are exposed to digital tools and platforms, the safety of their and their parents' personal data, and the fact that these whole processes should be under the supervision of some adult so that children do not navigate to unwanted or violent content or people. Hence, digital hygiene and the guarantee for the protection digital hygiene and the guarantee for the protection must be the essential consideration (Baeva, 2021).

There is also a dire need to ensure resource support and an increase in additional fund allocation, especially for the most vulnerable children, and to provide teacher training in blended modes to mitigate this issue (Lalima and Dangwal, 2017; UNESCO, UNICEF, the World Bank, and OECD, 2021).

4. Bringing administrative and systemic reforms to be undertaken for making blended learning possible at an early stage

Making learning in the early years possible through blended learning requires administrative and systemic reforms. It is thus critically important to strengthen education systems to facilitate effective learning (UNICEF, 2021b). There is a need to ensure transparent planning, management, and administration of learning interventions. Therefore, a continual review and monitoring mechanism to understand gaps in the delivery of interventions in learning and inform further actions to increase the efficacy of deliverables to teachers, education personnel, children, parents, and the community through a robust tracking and monitoring mechanism is crucial. Thus, looking into the future, UNICEF (2022) emphasized that the focus should be on strengthening Education Management Information Systems (EMIS) to ensure real-time and individual monitoring of staff and children. Courses should be developed and made available for educational implementers on effective administration as well as monitoring of teacher training, teachers in the field, children's learning, etc.

Tong et al. (2022) reported that blended learning is a suitable strategy for teacher training institutions and educational managers to improve the quality of training for teachers. This will enable data-driven decisions to be made by governments to allocate resources and build support structures for making blended learning useful. This may also require the countries to devise digital regulation policies for optimal use of digital platforms for learning and devise strategies for aligning resources with education needs.

5. Ensuring family and community support for blended modes of learning

Awareness of parents and the community (Lalima and Dangwal, 2017) and building their capacities on the use of digital resources and engaging themselves at home with children to support their learning and development is one of the most significant aspects of ensuring learning through blended mode even at home. To make blended learning more

effective, it is important that it be engaging for children. For this reason, the home environment and family support become even more important. To engage parents and the community effectively, it is important that parents and the community be guided on home learning modalities. Guidance on how to access them (e.g., which TV channels to use for which grades and at what time) through a combination of multiple strategies, such as phone calls by teachers, TV and radio broadcasts, etc., must be provided. Recognizing this reality, many countries have deployed TV or radio-mediated education programs (UNESCO, 2021c).

A conducive environment for engaging children in learning at an early stage is very critical. Hence, discussion and communication with parents and community members, particularly with first-generation learners whose parents did not complete their own education and may be illiterate, must be done to make them understand that. How to create a conducive learning environment at home and in the community How to develop a culture of reading in communities and homes by promoting community libraries Apart from that, preparing children for the blended learning style and discussing their new roles and responsibilities is important, as some of these young children may not be used to working independently or may be unfamiliar with some of the technologies. So support mechanisms need to be put in place for such children, and guidance needs to be provided to the family members who can further enable the blended learning process at an early stage at home.

CONCLUSION

Blended learning has come as a boon to suggest another option on school reopening to address the learning interruption and continue the learning of children in any situation like the COVID-19 pandemic. There are various strategies trending, which have been adopted or adapted by different countries; however, it is important to understand that blended learning is a challenge when it comes to implementation due to the large variations in the socio-economic and geographical diversity across countries. These challenges range from accessibility to the learning environment to the learning opportunities. It is crucial to make everyone, especially teachers and parents, understand that at an early stage, there needs to be a balance between engagement with online and digital media and play, toys, explorations, and experimentation in nature embedded with concrete material manipulation. This whole transformation of using technology both for children and for teachers and parents is also very new to them, so teachers and parents must be supported in this through training and exposure. It is also crucial to re-design the curriculum, help teachers acquire different teaching skills, include contemporary teaching and learning opportunities, manage learning content both online and in-class, and prepare children and parents to work in blended modes. To avoid the downbeat toward blended modes of learning, it is important to put a great deal of thought and care into planning to deliver a quality learning experience regardless of the mode of delivery.

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