

The Post-Covid-19 Landscape: A New Vision for Multilingual Education

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Abstract

The Covid-19 pandemic revealed significant gaps in traditional educational systems, especially in multilingual education. The rapid shift to online learning highlighted disparities in access to technology, non-dominant language content, and educator preparedness for addressing multilingual needs. This paper examines the future of multilingual education by applying Linguistic Relativity Theory (LRT) and Multiliteracies Theory to understand how language structures shape cognition and how diverse communication modes can enhance learning. Based on these insights, the paper proposes a comprehensive model for post-pandemic multilingual education, emphasizing technological accessibility, cognitive inclusivity, and multimodal learning environments. This model addresses the specific challenges revealed by the pandemic and offers a forward-looking framework for educational equity in a globalized world.

Keywords: Multilingual education, post-Covid, linguistic relativity theory, multiliteracies theory, digital divide, online learning

Introduction

The Covid-19 pandemic caused an unprecedented shift in education worldwide, reshaping learning at all levels and exposing deep-rooted inequalities. As schools, colleges, and universities transitioned to online learning, the already existing disparities in education systems were starkly magnified. Multilingual learners, who make up a significant portion of students globally, were among the most affected. These

students often belong to marginalized communities where more than one language is spoken, and many struggled to navigate digital educational platforms not designed to meet their specific linguistic and cognitive needs (World Economic Forum, 2020).

For multilingual learners, the shift to digital platforms came with unique challenges. Many of these students come from homes where non-dominant languages are spoken, and in the scramble to adapt to online education, the availability of educational resources in these languages was severely limited. Moreover, many digital learning platforms, particularly in less technologically advanced regions, were designed primarily for monolingual students and centered on dominant languages like English. This left multilingual learners at a disadvantage, unable to access learning materials in their native languages and forced to engage with content that did not align with their linguistic and cognitive proficiencies (García & Li Wei, 2014).

The rapid transition to online learning also revealed a significant digital divide, both globally and within nations. For students from multilingual backgrounds, this divide was particularly debilitating. Without access to reliable technology or internet services, and without resources in their native languages, these students were further isolated from the educational process. Even in regions with greater internet accessibility, the lack of platforms designed with linguistic diversity in mind limited multilingual learners' ability to meaningfully engage with learning material (World Economic Forum, 2020). The pandemic, therefore, not only exposed existing inequalities in educational systems but also highlighted the urgent need for a reimagined approach to multilingual education.

The adaptation of multilingual education post-pandemic requires understanding the intricate relationships between language, cognition, and communication. Linguistic Relativity Theory (LRT) explores how language influences thought, while Multiliteracies Theory highlights the importance of diverse literacy forms, such as digital and visual literacies, in modern education. Together, these frameworks provide a foundation for rethinking multilingual education to be more inclusive and adaptive to the digital age.

This paper proposes a model based on these theories, focusing on technological accessibility, cognitive inclusivity, and multimodal

learning environments. This model aims to address the challenges exposed during the pandemic and to create a more equitable, adaptable system for multilingual learners in a globalized and increasingly digital world.

Linguistic Relativity and Multiliteracies: Theoretical Foundations

Linguistic Relativity Theory (LRT), often referred to as the Sapir-Whorf Hypothesis, posits that the structure of a language shapes its speakers' cognitive processes and perceptions of the world. According to LRT, individuals' linguistic systems influence how they interpret and interact with their surroundings, affecting their worldview and cognitive functions (Kramsch, 2009). This theory holds particular relevance in multilingual educational contexts, where students are required to engage with content in languages that differ structurally from their native tongues.

For instance, tonal languages such as Mandarin or Vietnamese rely on pitch to convey meaning, which influences how speakers interpret auditory information. In contrast, non-tonal languages like English do not employ pitch in the same way. As a result, students from tonal language backgrounds may process spoken content in online lessons differently from their non-tonal counterparts (Gee, 2004). Additionally, students whose native languages possess complex grammatical structures, such as Arabic or Russian, may face cognitive challenges when engaging with educational materials that assume simpler grammatical frameworks, as is often the case in English-based platforms.

The pandemic-induced shift to digital learning further complicated these dynamics, as many online educational platforms were not designed to accommodate the cognitive diversity arising from linguistic variation. The one-size-fits-all approach to language learning overlooks the unique cognitive processes shaped by different languages, creating significant barriers for multilingual learners. These cognitive disparities underscore the need for educational systems that recognize and adapt to linguistic diversity.

Multiliteracies Theory, developed by the New London Group (1996), expands the definition of literacy to include multiple modes of communication, including visual, auditory, and digital literacies. In a post-pandemic world, where education increasingly relies on digital

platforms, this theory becomes especially relevant, as students are required to navigate multimodal environments that extend beyond traditional text-based instruction. During the pandemic, students were exposed to various forms of digital communication—such as video lessons, interactive learning tools, and multimedia resources—that integrated multiple forms of literacy.

For multilingual learners, the ability to engage with these multimodal literacies is critical to their success in digital learning environments. They must not only navigate different languages but also engage with multiple forms of media simultaneously. The integration of visual, auditory, and interactive learning materials caters to diverse learning styles and helps bridge the gaps that arise from linguistic differences (Kalantzis & Cope, 2012).

Together, Linguistic Relativity Theory and Multiliteracies Theory provide a comprehensive framework for understanding the cognitive and communicative challenges faced by multilingual learners in the post-pandemic world. These frameworks offer valuable insights into how educational systems can be restructured to accommodate linguistic diversity while embracing evolving literacy practices.

A Comprehensive Model for Post-Pandemic Multilingual Education

Building on the theoretical insights of Linguistic Relativity Theory and Multiliteracies Theory, this paper proposes a new model for multilingual education in the post-pandemic context. The model is structured around three core components: technological accessibility, cognitive inclusivity, and multimodal learning environments. Each of these components addresses specific challenges highlighted by the pandemic and provides a foundation for a more equitable and sustainable multilingual education system.

1. Technological Accessibility: Bridging the Digital Divide

The Covid-19 pandemic exposed the stark disparities in access to technology, particularly for multilingual learners in rural or low-income communities. According to the World Economic Forum (2020), fewer than 15 per cent of rural households in India had access to the internet during the pandemic, compared to 42 per cent in urban areas. This digital divide disproportionately affected multilingual learners, many of whom speak non-dominant languages. Without reliable access to digital tools

and internet connectivity, these students were excluded from online learning opportunities, further deepening existing inequalities.

Figure 1: Internet Access and Multilingual Learning Opportunities During Covid-19 (Source: World Economic Forum, 2020)

<i>Category</i>	<i>Urban India (%)</i>	<i>Rural India (%)</i>
Households with Internet Access	42%	15%
Access to Multilingual Learning Platforms	75%	25%

To create an inclusive multilingual education system, technological accessibility must be prioritized. This means ensuring that all students have access to the necessary digital tools—such as internet connectivity, computers, and mobile devices—to participate fully in online learning. Governments and educational institutions must invest in the infrastructure required to bridge the digital divide, particularly in underserved areas. Additionally, online educational platforms must be designed to support a wide range of languages and dialects, allowing students to engage with content in their native language (Shohamy, 2001).

However, technological accessibility is not only about providing devices or internet access. It also involves ensuring that digital tools and platforms are linguistically inclusive. Current educational platforms often default to dominant languages, such as English, which limits multilingual learners' ability to fully engage with the content. In a post-pandemic world, platforms must be designed with linguistic diversity in mind, offering multilingual options and interfaces that accommodate non-dominant languages (Tandem, n.d.). This approach will ensure that students from diverse linguistic backgrounds are not left behind in the digital age.

The rationale behind technological accessibility is straightforward: without access to technology and linguistically inclusive platforms, multilingual learners will continue to be marginalized. By investing in digital infrastructure and designing platforms that are accessible to all, educational systems can provide opportunities for all students, regardless of their linguistic or socio-economic background.

2. Cognitive Inclusivity: Addressing Linguistic Diversity in Learning

Cognitive inclusivity is the second critical component of the proposed model. As Linguistic Relativity Theory suggests, the structure of a

language shapes cognitive processes, which in turn affect how students engage with educational content (Kramsch, 2009). For multilingual learners, whose cognitive processing may be influenced by their native language, traditional educational methods that assume cognitive uniformity are inadequate. This is especially true in a digital learning environment, where the cognitive demands of navigating multimodal content can be heightened.

To address this challenge, educators must be trained to recognize the cognitive differences that arise from linguistic diversity and adapt their teaching methods accordingly. For instance, students from languages with complex syntactic structures may benefit from visual aids or interactive elements that help them process grammatical rules more effectively. Similarly, students from tonal language backgrounds may require additional auditory support to fully comprehend spoken content in a non-tonal language (Darling-Hammond & Bransford, 2005). By acknowledging these cognitive differences, educators can create more inclusive learning environments that accommodate the diverse needs of multilingual students.

The need for cognitive inclusivity also extends to the design of educational platforms. Many online learning tools are developed with the assumption that all students process information similarly, which can disadvantage students whose linguistic backgrounds require different cognitive strategies. For example, a language learning platform designed for English speakers may not take into account the grammatical complexity of languages like Russian or the tonal nuances of languages like Vietnamese. This can create additional cognitive barriers for multilingual learners, who are already navigating the challenges of learning in a second or third language (Baker, 2006).

The validity of cognitive inclusivity lies in its ability to bridge the gap between linguistic diversity and educational equity. By recognizing that language shapes thought, educators and platform designers can develop strategies that support the cognitive needs of all learners. This approach ensures that multilingual students are not only included but are also able to thrive in the educational system, regardless of the language they speak.

3. Multimodal Learning Environments: Expanding Literacy Beyond Text

The third component of the proposed model is the creation of multimodal

learning environments. In a post-pandemic world, where digital platforms have become central to education, it is essential to recognize that literacy is no longer confined to traditional reading and writing. As Multiliteracies Theory emphasizes, literacy now encompasses a wide range of communicative practices, including visual, auditory, and digital literacies (New London Group, 1996). For multilingual learners, the ability to engage with multimodal content is critical to their success in a globalized and digitized world.

During the pandemic, students were exposed to multimedia resources—such as video lessons, interactive simulations, and digital storytelling tools—that extended beyond traditional classroom settings. Platforms like Tandem and Storybird provide students with the opportunity to practise language skills in real-world contexts, using multiple forms of communication to enhance their learning experience (Storybird, n.d.). These platforms allow students to navigate multimodal environments that reflect the complexities of modern communication.

The creation of multimodal learning environments is particularly important for multilingual learners, who may struggle with traditional text-based methods of instruction. By incorporating visual, auditory, and interactive elements into the curriculum, educators can create more engaging and inclusive learning experiences that cater to the diverse literacy practices of multilingual students. For instance, a student learning English as a second language may benefit from a video-based lesson that incorporates subtitles and visual aids, while another student may prefer an interactive simulation that allows them to practise their language skills in a real-world context.

The rationale for multimodal learning environments is grounded in the idea that literacy is no longer a singular concept but a dynamic and evolving practice. In a globalized world, where students must navigate multiple forms of communication, it is essential that educational systems reflect this reality. By embracing multimodal literacies, we can create a more adaptable and inclusive educational model that prepares students for the complexities of a digital world (Kalantzis & Cope, 2012).

Conclusion

The Covid-19 pandemic has provided a stark reminder of the inequalities that exist within global education systems, particularly for

multilingual learners. By applying Linguistic Relativity Theory and Multiliteracies Theory, this paper has proposed a comprehensive model for reimagining multilingual education in a post-pandemic world. The model emphasizes technological accessibility, cognitive inclusivity, and multimodal learning environments, offering a framework for addressing the specific challenges faced by multilingual learners.

This model is not merely a response to the immediate challenges posed by the pandemic; it is a forward-looking approach that seeks to create a more inclusive and sustainable educational system. By investing in digital infrastructure, adapting pedagogical strategies to account for cognitive diversity, and embracing the evolving nature of literacy, we can ensure that multilingual learners are provided with the tools and support they need to succeed in a globalized world.

The proposed model contributes to the growing body of research on multilingual education by offering a practical and theoretically grounded framework that addresses the cognitive, technological, and pedagogical challenges of the twenty-first century. As we continue to navigate the complexities of a post-pandemic world, this model provides a vision for a more equitable and adaptable educational future.

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